

S
343.0926
M26its
1985

Impact of Tax Simplification Proposals on Oil and Gas Production and the Economy

STATE DOCUMENTS COLLECTION

MAR 27 2001

MONTANA STATE LIBRARY,
1515 E. 6th AVE.
HELENA, MONTANA 59620

MONTANA



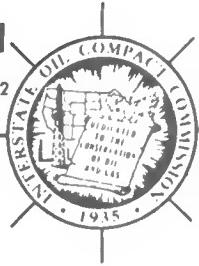
MONTANA STATE LIBRARY



3 0864 0015 6952 7

INTERSTATE OIL COMPACT COMMISSION

HEADQUARTERS OFFICE: 900 N. E. 23RD STREET • P. O. BOX 53127 • OKLAHOMA CITY, OKLAHOMA 73152
TELEPHONE: (405) 525-3556



February 27, 1985

MEMORANDUM

TO: Governors, Official Representatives, and Members
of the Interstate Oil Compact Commission

FROM: W. Timothy Dowd

The attached report explains the effects of the tax simplification proposals on oil and gas production and the economics of the various producing states. This includes an analysis of the impact of the proposal on your state. Its focus is upon the impact of the repeal of expensing of intangible drilling costs; the removal of percentage depletion on stripper oil wells; and on the proposals as they relate to enhanced oil recovery projects.

This effort represents a preliminary report, and is subject to revision. Should there be any suggestions to be made as to format or content, please write me.

MEMBER STATES: ALABAMA • ALASKA • ARIZONA • ARKANSAS • CALIFORNIA • COLORADO • FLORIDA • ILLINOIS • INDIANA • KANSAS • KENTUCKY
LOUISIANA • MARYLAND • MICHIGAN • MISSISSIPPI • MONTANA • NEBRASKA • NEVADA • NEW MEXICO • NEW YORK • NORTH DAKOTA • OHIO
OKLAHOMA • PENNSYLVANIA • SOUTH DAKOTA • TEXAS • UTAH • VIRGINIA • WEST VIRGINIA • WYOMING
ASSOCIATES: GEORGIA • IDAHO • NORTH CAROLINA • OREGON • SOUTH CAROLINA • WASHINGTON

WTJD
95-227361

1500

Executive Summary

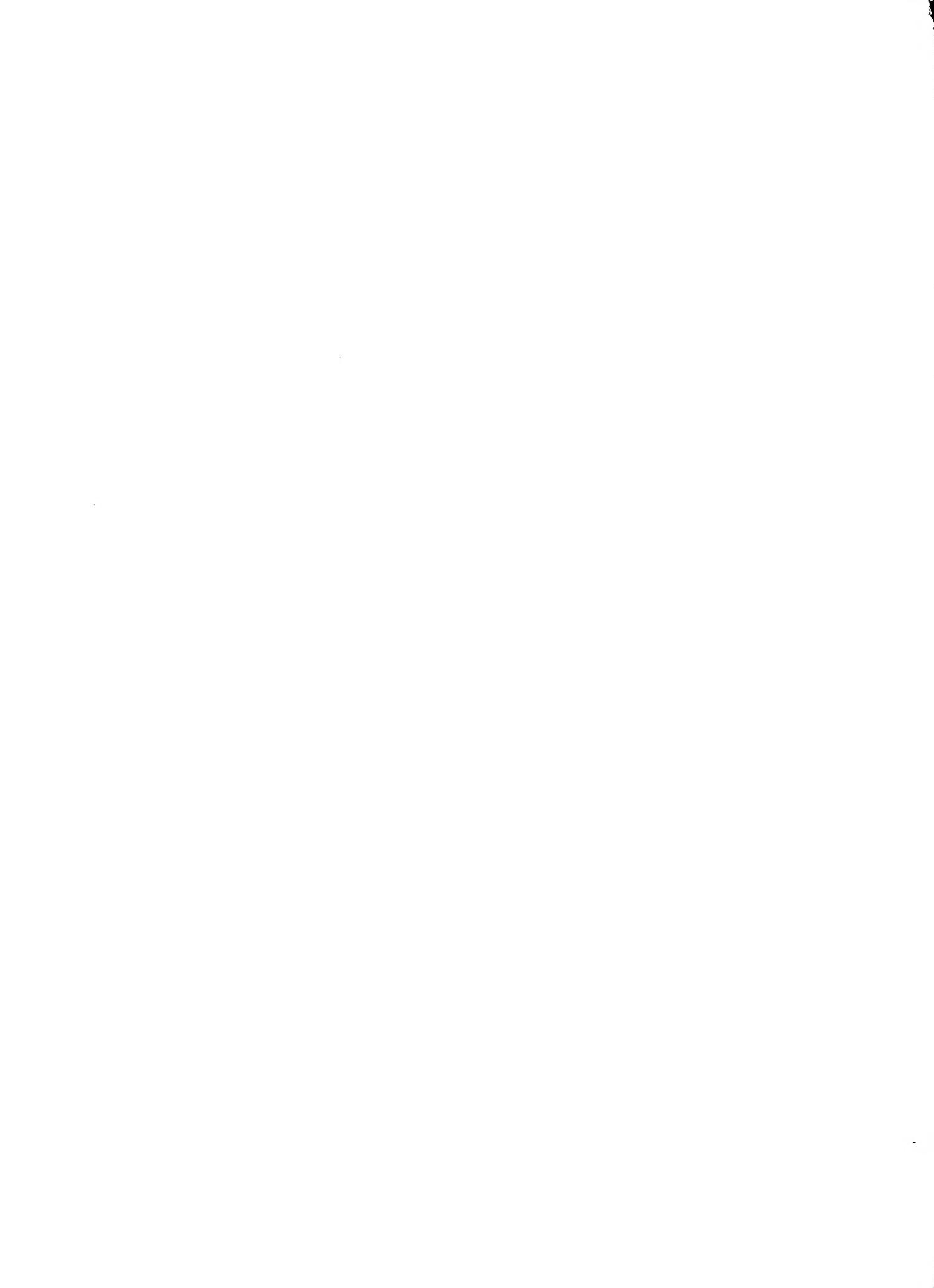
This report present the findings of a three-part study initiated by the Interstate Oil Compact Commission ("IOCC") to determine the economic impact on the United States and on each IOCC member state of changes in federal tax laws recently proposed by the Treasury Department.

The IOCC is an organization of thirty petroleum producing states concerned with the conservation of oil and gas through waste prevention at the production level. An IOCC task force commissioned The RAM Group, Ltd., an Oklahoma City management consulting firm, to conduct the study.

This report is divided into two parts. Part One presents the results of the study for an individual IOCC member state and Part Two presents the national findings. Each part is divided into three sections, covering the economic impact of:

- repealing the expensing of intangible drilling costs;
- removal of percentage depletion on stripper oil wells;
- federal tax proposals on enhanced oil recovery.

The study concludes that the Treasury Department's tax proposals would cause a dramatic drop in domestic oil and natural gas drilling, production, proven reserves, and enhanced oil recovery projects, thereby greatly increasing the nation's reliance on imported oil. Moreover, the reduced activity in the petroleum industry would have a severe economic impact not only in oil and gas producing states but on the entire nation. For example, the study forecasts that repealing the expensing of intangible drilling costs would result in the loss of more than a half million jobs in the petroleum and other industries; would reduce annual drilling expenditures by more than \$11.2 billion, and would reduce domestic additions of oil and natural gas reserves by the equivalent of more than 5.6 billion barrels of oil.



IMPACT ON THE NATIONAL ECONOMY OF REPEALING THE EXPENSING OF INTANGIBLE DRILLING COSTS

Introduction

This study examines the impact on Montana's economy of repealing the expensing of intangible drilling costs. Under current tax law, intangible drilling costs (IDC's) are defined as expenditures that in themselves do not have salvage value and are incident to and necessary for the drilling of wells and the preparation of wells for the production of oil and natural gas. Examples of intangible drilling costs include wages, fuel and other supplies used in preparing to drill wells, and in drilling and completing wells. In contrast, the costs of steel tubular goods, valves and other equipment with salvage value are considered tangible equipment and must be capitalized for tax purposes.

Currently, intangible drilling costs may be deducted in calculating taxable income for the year in which they are incurred. However, under a recent proposal by the Treasury Department, intangible drilling costs would be capitalized, thus requiring the tax deductions for these expenditures to be spread out over the productive life of the well. Under this proposal, which, if enacted, would be effective for costs paid or incurred on or after January 1, 1986, the effect would be to greatly reduce the amount of cash available for drilling.

Major Findings

The study found that repealing the expensing of intangible drilling costs would have the following results, on average, during the 1986-91 period:

- drilling expenditures would be reduced by \$75,823,604 annually;
- 3,791 jobs would be lost due to reduced drilling;
- 217 fewer oil and gas wells would be drilled each year;
- drilling rigs operating would be reduced by 16 yearly;
- additions to domestic oil and natural gas reserves would be reduced 37,913,809 barrels of oil equivalent (oil and natural gas, where one barrel of oil is the energy equivalent of 5,800 cubic feet of gas) during the six year period;
- daily oil and natural gas production would fall by 5,122 barrels of oil equivalent;

- annual revenues from oil and gas sales would fall by \$36,696,672;
- state tax receipts from oil and gas production would fall by \$2,200,989 annually.

Background on Expensing IDC's

Under current law, oil and gas producers have the right to elect to expense IDC's as incurred or to capitalize them. They may also elect to expense only the IDC's on dry wells and to capitalize the IDC's on productive wells. If capitalized, the costs are recovered through depletion and depreciation. No investment tax credit is allowed for IDC expenditures.

Normally, oil and gas producers elect to expense IDC's in the year occurred, as this increases their after-tax cash flow. Because of the time value of money, a tax benefit allowed in year one is obviously worth more than the same tax benefit spread out over several years.

Impact on After-Tax Cash Flow

Tables One through Five calculate the total tax benefits allowed for drilling a typical well at a total cost of \$590,000 under current law and under four proposed changes in the current law. This total expenditure consists of \$400,000 spent on IDC's; \$140,000 spent on equipment and depreciated over a ten year period; and, \$50,000 spent on leasehold and depleted over the same ten year period. Note that on Table One, Current Law, the tax rate is 50% and IDC's are deducted in year one. Table Two shows that under the Kemp-Kasten proposal, the tax rate is reduced to 25%, but IDC deductions are spread over a three year period. Table Three shows that the Brandley-Gephardt proposal sets the tax rate at 30%, but requires IDC expenditures to be depreciated over the productive life of the well, in this case assumed to be ten years. Table Four, Treasury Proposal Without Indexing, sets the tax rate at 35% and treats IDC's the same as the Bradley-Gephardt proposal. Table Five, Treasury Proposal Including Indexing at 6% Annual Rate of Inflation, shows the same tax rate and treatment for IDC's as in Table Four, except the cost basis is adjusted each year for inflation, thus increasing the amount of the deductions allowed in years two through ten.

Compared to present law, each of the four proposed changes would reduce the tax benefits available to the producer in year one. Although most of the tax benefits in years two through ten would be somewhat higher under the four proposed changes, these increases would not be enough to restore the tax benefits available in year one under current law.

Table Six, Evaluation and Dollar Comparison of Total Tax Benefits Under the Various Flat Tax Proposals, summarizes the total tax benefits as calculated in Tables One through Five and compares the tax benefits, in dollars, of the current law to those that would be available under the four proposed changes. Note that in year one the producer's tax benefits are reduced by \$192,100 to \$200,300 under the four proposed changes, so the lower overall tax rates do not offset the reduced IDC deductions.

Table Seven, Evaluation and Percentage Comparison of Total Tax Benefits Under the Various Flat Tax Proposals, uses the same total tax benefit data discussed above, and shows the percentage reduction in current tax benefits under each of the four proposed changes. Note that in year one, the total tax benefit from a \$590,000 drilling expenditure drops by more than 32% in each case.

Table Eight, Evaluation and Comparison of After-Tax Cash Flow Using the Total Tax Benefits Under the Various Flat Tax Proposals, assumes a producer has \$590,000 of income which he uses to drill a well. The drilling expenditure generates various tax deductions under the current law and the four proposed changes, resulting in the after-tax cash flow shown in Table Eight. The largest reduction, \$103,600 or 17.56%, occurs in year one under the Treasury proposal, with or without inflation indexing. Even though the Producer's cash flow would be increased by 4.32% in year two under the Treasury proposal with indexing, his tax benefits for new expenditure made that year would once again be 17.56% lower than under current law. So, under the Treasury proposal, the after-tax cash flow of the producer who drills new wells each year would never catch up with the amount he could expect under current law.

Impact on Montana Economy

The impact on the Montana economy of repealing the expensing of intangible drilling costs is assessed by taking the effect on the producer's after tax cash flow from an average well, as analyzed above, and applying the results to overall petroleum industry figures.

Table Nine, Montana Analysis of the Impact of the Proposed Tax Treatment on Intangible Drilling Costs on Drilling Expenditures, Wells Drilled, Employment and Reserves Found - 1986-1991, shows the historical expenditures for domestic drilling for 1980 through 1983, as reported by the Joint Association Survey. Under current law, 1986-91 drilling expenditures are forecast to remain at the 1983 level. Presently, approximately 38% of the funds available for drilling is obtained from outside the petroleum industry from sources such as investors and bank loans. Approximately 62% of the funds available for drilling is generated within the industry from oil and gas revenues.

For an investor, the ability to expense two-thirds or more of his investment in oil and gas drilling during the first year is a major incentive for putting his dollars at risk. Falling oil and natural gas prices during the past two years have already made it more difficult to raise outside capital, through either debt or equity means. If a worthwhile yet high risk investment has no better tax treatment than a safe investment, the investor may as well play it safe. Thus, third party funding is forecast to drop by one-half in 1986 under the Treasury proposal.

The economic analysis forecasts that, if the Treasury proposal were enacted, drilling expenditures in 1986 would drop \$67,000,000. The reduction would be due to uncertainty within the industry and reduced funding from outside investors and lenders. After 1986, industry expenditures on domestic drilling are forecast to remain at 1984 levels, adjusted by the percentage change in after-tax cash flow, as calculated on Table Eight for the Treasury proposal.

Economic research has found that a reduction in drilling expenditures of \$1,000,000 results in the loss of fifty jobs. Therefore, the 1986-1991 yearly average of \$75,823,604 in reduced drilling expenditures would result in 3,791 jobs lost.

At an average cost of \$371,721 per well, these reduced drilling expenditures would mean that 217 fewer oil and gas wells would be drilled each year, and 16 fewer rigs would be running annually. Based on an average finding cost of \$12 per barrel of oil equivalent, reserve additions would be reduced by 37,913,809 barrels of oil equivalent during the six year period.

Because of the reduced drilling, daily production would drop by an average of 5,122 barrels of oil equivalent. At an average price of \$19.63 per barrel of oil equivalent, the reduced production would result in an average annual reduction in oil and gas sales of \$36,696,672. Revenues from state production taxes, at an average tax rate of 8% would drop \$2,200,989 annually.

The impact on the Montana economy is illustrated by Charts One through Seven, each headed Montana Impact of IDC Tax Proposal. Chart One, Comparison of Drilling Expenditures Yearly, shows historical drilling expenditures from 1980 through 1984, then compares the forecast of domestic drilling expenditures under current law to the forecast for expenditures under the Treasury Proposal. The remaining charts show the 1986-1991 annual impact on drilling expenditures, employment, wells drilled, rigs in operation, reserves added, and daily production.

**Tax Benefits From Drilling Expenditures Available Under
Current Law**

Table One

| Year | IDC | Depreciation | Depletion | Total Deductions | Tax Benefit At 50% Rate | Investment Tax Credit | Total Tax Benefits |
|--------------|----------------|----------------|---------------|--------------------------------|-------------------------|-----------------------|--------------------|
| 1 | 400,000 | 21,000 | 7,800 | 428,800 | 214,400 | 11,200 | 225,600 |
| 2 | 0 | 30,800 | 11,700 | 42,500 | 21,300 | 0 | 21,300 |
| 3 | 0 | 29,400 | 8,300 | 37,700 | 18,900 | 0 | 18,900 |
| 4 | 0 | 29,400 | 7,300 | 36,700 | 18,400 | 0 | 18,400 |
| 5 | 0 | 29,400 | 6,300 | 35,700 | 17,900 | 0 | 17,900 |
| 6 | 0 | 0 | 4,700 | 4,700 | 2,400 | 0 | 2,400 |
| 7 | 0 | 0 | 2,200 | 2,200 | 1,100 | 0 | 1,100 |
| 8 | 0 | 0 | 1,100 | 1,100 | 600 | 0 | 600 |
| 9 | 0 | 0 | 400 | 400 | 200 | 0 | 200 |
| 10 | 0 | 0 | 200 | 200 | 100 | 0 | 100 |
| TOTAL | 400,000 | 140,000 | 50,000 | 590,000 | 295,300 | 11,200 | 306,500 |
| | | | | Net After Tax Present Value at | | 12.00% | 255,800 |

| | |
|----------------------|-----------|
| IDC = | \$400,000 |
| Equipment = | \$140,000 |
| Leasehold = | \$50,000 |
| Total Expenditures = | \$590,000 |
| Tax Return = | 50.00% |

Kemp - Kasten Proposal

Table Two

| Year | IDC | Depreciation | Depletion | Total Deductions | Tax Benefit At 25% Rate | Investment Tax Credit | Total Tax Benefits |
|--------------|----------------|----------------|---------------|--------------------------------|-------------------------|-----------------------|--------------------|
| 1 | 100,000 | 21,000 | 12,500 | 133,500 | 33,400 | 0 | 33,400 |
| 2 | 152,000 | 30,800 | 19,000 | 201,800 | 50,500 | 0 | 50,500 |
| 3 | 148,000 | 29,400 | 18,500 | 195,900 | 49,000 | 0 | 49,000 |
| 4 | 0 | 29,400 | 0 | 29,400 | 7,400 | 0 | 7,400 |
| 5 | 0 | 29,400 | 0 | 29,400 | 7,400 | 0 | 7,400 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 400,000 | 140,000 | 50,000 | 590,000 | 147,700 | 0 | 147,700 |
| | | | | Net After Tax Present Value at | | 12.00% | 113,900 |

IDC = \$400,000
 Equipment = \$140,000
 Leasehold = \$50,000
 Total Expenditures = \$590,000
 Tax Return = 25.00%

Bradley - Gephardt Proposal

Table Three

| Year | IDC | Depreciation | Depletion | Total Deductions | Tax Benefit At 30% Rate | Investment Tax Credit | Total Tax Benefits |
|--------------|----------------|----------------|---------------|---------------------------------------|-------------------------|-----------------------|--------------------|
| 1 | 50,000 | 28,000 | 6,300 | 84,300 | 25,300 | 0 | 25,300 |
| 2 | 87,500 | 44,800 | 10,900 | 143,200 | 43,000 | 0 | 43,000 |
| 3 | 65,600 | 26,900 | 8,200 | 100,700 | 30,200 | 0 | 30,200 |
| 4 | 49,200 | 16,100 | 6,200 | 71,500 | 21,500 | 0 | 21,500 |
| 5 | 36,900 | 9,700 | 4,600 | 51,200 | 15,400 | 0 | 15,400 |
| 6 | 27,700 | 5,800 | 3,500 | 37,000 | 11,100 | 0 | 11,100 |
| 7 | 20,800 | 3,500 | 2,600 | 26,900 | 8,100 | 0 | 8,100 |
| 8 | 15,600 | 2,100 | 1,900 | 19,600 | 5,900 | 0 | 5,900 |
| 9 | 11,700 | 1,200 | 1,500 | 14,400 | 4,300 | 0 | 4,300 |
| 10 | 35,000 | 1,900 | 4,300 | 41,200 | 12,400 | 0 | 12,400 |
| TOTAL | 400,000 | 140,000 | 50,000 | 590,000 | 177,200 | 0 | 177,200 |
| | | | | Net After Tax Present Value at | | 12.00% | 118,000 |

IDC = \$400,000
 Equipment = \$140,000
 Leasehold = \$50,000
 Total Expenditures = \$590,000
 Tax Return = 30.00%

Treasury Proposal Without Indexing

Table Four

| Year | IDC | Depreciation | Depletion | Total Deductions | Tax Benefit At 35% Rate | Investment Tax Credit | Total Tax Benefits |
|--------------|----------------|----------------|---------------|--------------------------------|-------------------------|-----------------------|--------------------|
| 1 | 62,600 | 25,200 | 7,800 | 95,600 | 22,500 | 0 | 33,500 |
| 2 | 93,900 | 20,700 | 11,700 | 126,300 | 44,200 | 0 | 44,200 |
| 3 | 66,100 | 16,900 | 8,300 | 91,300 | 32,000 | 0 | 32,000 |
| 4 | 58,400 | 13,900 | 7,300 | 79,600 | 27,900 | 0 | 27,900 |
| 5 | 50,100 | 11,400 | 6,300 | 67,800 | 23,700 | 0 | 23,700 |
| 6 | 37,600 | 9,300 | 4,700 | 51,600 | 18,100 | 0 | 18,100 |
| 7 | 17,400 | 7,700 | 2,200 | 27,300 | 9,700 | 0 | 9,600 |
| 8 | 8,700 | 6,300 | 1,100 | 16,100 | 5,600 | 0 | 5,600 |
| 9 | 3,500 | 5,100 | 400 | 9,000 | 3,200 | 0 | 3,200 |
| 10 | 1,700 | 23,500 | 200 | 25,400 | 8,900 | 0 | 8,900 |
| TOTAL | 400,000 | 140,000 | 50,000 | 590,000 | 195,800 | 0 | 206,700 |
| | | | | Net After Tax Present Value at | | 12.00% | 138,900 |

IDC = \$400,000
 Equipment = \$140,000
 Leasehold = \$50,000
 Total Expenditures = \$590,000
 Tax Return = 35.00%

Treasury Proposal Including Indexing
At 6% Annual Rate of Inflation

Table Five

| Year | IDC | Depreciation | Depletion | Total Deductions | Tax Benefit At 35% Rate | Investment Tax Credit | Total Tax Benefits |
|--------------|----------------|----------------|---------------|------------------|---------------------------------------|-----------------------|--------------------|
| 1 | 62,600 | 25,200 | 7,800 | 95,600 | 33,500 | 0 | 33,500 |
| 2 | 99,500 | 21,900 | 12,400 | 133,800 | 46,800 | 0 | 46,800 |
| 3 | 74,300 | 19,000 | 9,300 | 102,600 | 35,900 | 0 | 35,900 |
| 4 | 69,600 | 16,500 | 8,700 | 94,800 | 33,200 | 0 | 33,200 |
| 5 | 63,200 | 14,400 | 7,900 | 85,500 | 29,900 | 0 | 29,900 |
| 6 | 50,300 | 12,500 | 6,300 | 69,100 | 24,200 | 0 | 24,200 |
| 7 | 24,700 | 10,900 | 3,100 | 38,700 | 13,500 | 0 | 13,500 |
| 8 | 13,100 | 9,400 | 1,600 | 24,100 | 8,400 | 0 | 8,400 |
| 9 | 5,500 | 8,200 | 700 | 14,400 | 5,000 | 0 | 5,000 |
| 10 | 2,900 | 39,600 | 400 | 42,900 | 15,000 | 0 | 15,000 |
| TOTAL | 465,700 | 177,600 | 58,200 | 701,500 | 245,400 | 0 | 245,400 |
| | | | | | Net After Tax Present Value at | 12.00% | 159,200 |

| | |
|----------------------|-----------|
| IDC = | \$400,000 |
| Equipment = | \$140,000 |
| Leasehold = | \$50,000 |
| Total Expenditures = | \$590,000 |
| Tax Return = | 35.00% |

Table Six

EVALUATION AND DOLLAR COMPARISON
OF TOTAL TAX BENEFITS UNDER
THE VARIOUS FLAT TAX PROPOSALS

| YEAR | TOTAL TAX BENEFIT | | | | | COMPARISON OF TAX BENEFITS WITH CURRENT LAW | | | | | | |
|-------|-------------------|------------------|-----------|------------------------|-----------|---|------------------------------|------------------|------------------------|-------------|---------------------------------|------------------------------|
| | CURRENT LAW | KEMP & KASTEN | | BRADLEY & BEPHEARDT | | TREASURY WITHOUT INDEXING | TREASURY WITH INDEXING | KEMP & KASTEN | BRADLEY & BEPHEARDT | | TREASURY WITHOUT INDEXING | TREASURY WITH INDEXING |
| | | 50% | 25% | 30% | 35% | 35% | 35% | 25% | 30% | 35% | 35% | |
| 1 | \$225,600 | \$33,400 | \$25,300 | \$33,500 | \$33,500 | | | (\$192,200) | (\$200,300) | (\$192,100) | (\$192,100) | |
| 2 | \$21,300 | \$50,500 | \$43,000 | \$44,200 | \$46,800 | | | \$29,200 | \$21,700 | \$22,900 | \$25,500 | |
| 3 | \$18,900 | \$49,000 | \$30,200 | \$32,000 | \$35,900 | | | \$30,100 | \$11,300 | \$13,100 | \$17,000 | |
| 4 | \$18,400 | \$7,400 | \$21,500 | \$27,900 | \$33,200 | | | (\$11,000) | \$3,100 | \$9,500 | \$14,800 | |
| 5 | \$17,900 | \$7,400 | \$15,400 | \$23,700 | \$29,900 | | | (\$10,500) | (\$2,500) | \$5,800 | \$12,000 | |
| 6 | \$2,400 | \$0 | \$11,100 | \$18,100 | \$24,200 | | | (\$2,400) | \$9,700 | \$15,700 | \$21,800 | |
| 7 | \$1,100 | \$0 | \$8,100 | \$9,600 | \$13,500 | | | (\$1,100) | \$7,000 | \$8,500 | \$12,400 | |
| 8 | \$600 | \$0 | \$5,900 | \$5,600 | \$8,400 | | | (\$600) | \$5,300 | \$5,000 | \$7,800 | |
| 9 | \$200 | \$0 | \$4,300 | \$3,200 | \$5,000 | | | (\$200) | \$4,100 | \$3,000 | \$4,800 | |
| 10 | \$100 | \$0 | \$12,400 | \$8,900 | \$15,000 | | | (\$100) | \$12,300 | \$8,800 | \$14,900 | |
| TOTAL | \$306,500 | \$147,700 | \$177,200 | \$206,700 | \$245,400 | | | (\$158,800) | (\$129,300) | (\$99,800) | (\$61,100) | |

NPV @

12.00% \$255,772 \$113,859 \$117,980 \$138,896 \$159,230 (\$141,913) (\$137,792) (\$116,876) (\$96,542)

BASIS:

IDC: \$400,000
EQUIPMENT: \$140,000
LEASEHOLD: \$50,000

*** ASSUMING 6% INFLATION INDEXING IN YEARS 2 THRU DASH 10.

Table Seven

**EVALUATION AND PERCENTAGE COMPARISON
OF TOTAL TAX BENEFITS UNDER
THE VARIOUS FLAT TAX PROPOSALS**

| TOTAL TAX BENEFIT | | | | | | PERCENT REDUCTION IN TAX BENEFIT BASED ON A \$590,000 EXPENDITURE IN YEAR 1 | | | | | |
|-------------------|-----------------------|-------------------------|------------------|-------------------------------|--|--|--|-------------------------|--|------------------|--|
| YEAR | CURRENT LAW 50% | KEMP & KASTEN 25% | | BRADLEY & BEPHEARDT 30% | | TREASURY WITHOUT INDEXING 35% | TREASURY WITH INDEXING*** 35% | KEMP & KASTEN 25% | TREASURY WITHOUT INDEXING 35% | | TREASURY WITH INDEXING*** 35% |
| | | KASTEN 25% | BEPHEARDT 30% | BRADLEY & BEPHEARDT 30% | TREASURY WITHOUT INDEXING 35% | TREASURY WITH INDEXING*** 35% | | | KASTEN 25% | BEPHEARDT 30% | TREASURY WITH INDEXING*** 35% |
| 1 | \$225,600 | \$33,400 | \$25,300 | \$33,500 | \$33,500 | | | -32.58% | -33.95% | -32.56% | -32.56% |
| 2 | \$21,300 | \$50,500 | \$43,000 | \$44,200 | \$46,800 | | | 4.95% | 3.68% | 3.88% | 4.32% |
| 3 | \$18,900 | \$49,000 | \$30,200 | \$32,000 | \$35,900 | | | 5.10% | 1.92% | 2.22% | 2.86% |
| 4 | \$18,400 | \$7,400 | \$21,500 | \$27,900 | \$33,200 | | | -1.86% | 0.53% | 1.61% | 2.51% |
| 5 | \$17,900 | \$7,400 | \$15,400 | \$23,700 | \$29,900 | | | -1.78% | -0.42% | 0.98% | 2.03% |
| 6 | \$2,400 | \$0 | \$11,100 | \$18,100 | \$24,200 | | | -0.41% | 1.47% | 2.66% | 3.69% |
| 7 | \$1,100 | \$0 | \$8,100 | \$9,600 | \$13,500 | | | -0.19% | 1.19% | 1.44% | 2.10% |
| 8 | \$600 | \$0 | \$5,900 | \$5,600 | \$8,400 | | | -0.10% | 0.90% | 0.85% | 1.32% |
| 9 | \$200 | \$0 | \$4,300 | \$3,200 | \$5,000 | | | -0.03% | 0.69% | 0.51% | 0.81% |
| 10 | \$100 | \$0 | \$12,400 | \$8,900 | \$15,000 | | | -0.02% | 2.08% | 1.49% | 2.53% |
| TOTAL | \$306,500 | \$147,700 | \$177,200 | \$206,700 | \$245,400 | | | -26.92% | -21.92% | -16.92% | -10.36% |

NPV @

12.00% \$255,772 \$113,859 \$117,980 \$138,896 \$159,230

BASIS:

IDC: \$400,000
 EQUIPMENT: \$140,000
 LEASEHOLD: \$50,000

TOTAL \$590,000

*** ASSUMING 6% INFLATION INDEXING IN YEARS 2 THROUGH 10.

Table Eight

**EVALUATION AND COMPARISON
OF AFTER TAX CASH FLOW USING
THE IDC TOTAL TAX BENEFITS UNDER
THE VARIOUS FLAT TAX PROPOSALS**

| EFFECT ON AFTER TAX CASH FLOW**** | | | | | | PERCENT REDUCTION IN CASH AVAILABLE TO SPEND BASED ON \$590,000 EXPENDITURE IN YEAR 1 | | | | | |
|-----------------------------------|-----------------------|-------------------------|-----------|-------------------------------|-----------|--|--|-------------------------|--|---------|--|
| YEAR | CURRENT LAW 50% | KEMP & KASTEN 25% | | BRADLEY & GEPHEARDT 30% | | TREASURY WITHOUT INDEXING 35% | TREASURY WITH INDEXING*** 35% | KEMP & KASTEN 25% | TREASURY WITHOUT INDEXING 35% | | TREASURY WITH INDEXING*** 35% |
| | | | | | | | | | | | |
| 1 | \$520,600 | \$475,900 | \$438,300 | \$417,000 | \$417,000 | | | -7.58% | -13.95% | -17.56% | -17.56% |
| 2 | \$21,300 | \$50,500 | \$43,000 | \$44,200 | \$46,800 | | | 4.95% | 3.68% | 3.88% | 4.32% |
| 3 | \$18,900 | \$49,000 | \$30,200 | \$32,000 | \$35,900 | | | 5.10% | 1.92% | 2.22% | 2.68% |
| 4 | \$18,400 | \$7,400 | \$21,500 | \$27,900 | \$33,200 | | | -1.86% | 0.53% | 1.61% | 2.51% |
| 5 | \$17,900 | \$7,400 | \$15,400 | \$23,700 | \$29,900 | | | -1.78% | -0.42% | 0.98% | 2.03% |
| 6 | \$2,400 | \$0 | \$11,100 | \$18,100 | \$24,200 | | | -0.41% | 1.47% | 2.66% | 3.69% |
| 7 | \$1,100 | \$0 | \$8,100 | \$9,600 | \$13,500 | | | -0.19% | 1.19% | 1.44% | 2.10% |
| 8 | \$600 | \$0 | \$5,900 | \$5,600 | \$8,400 | | | -0.10% | 0.90% | 0.85% | 1.32% |
| 9 | \$200 | \$0 | \$4,300 | \$3,200 | \$5,000 | | | -0.03% | 0.69% | 0.51% | 0.81% |
| 10 | \$100 | \$0 | \$12,400 | \$8,900 | \$15,000 | | | -0.02% | 2.08% | 1.49% | 2.53% |
| TOTAL | 601500 | 590200 | 590200 | 590200 | 628900 | | | -1.92% | -1.92% | -1.92% | 4.64% |

NOTE:

**** AFTER TAX CASH FLOW TAKING INTO ACCOUNT IDC AND OTHER TAX BENEFITS [AS CALCULATED ON TABLES ONE THROUGH FIVE].

*** ASSUMING 6% INFLATION INDEXING IN YEARS 2 THROUTH 10.

** TAX WITHOUT TAKING INTO ACCOUNT IDC TAX BENEFITS.

* AFTER TAX CASH FLOW WITHOUT TAKING INTO ACCOUNT IDC TAX BENEFITS.

BASIS:

| | |
|------------|-----------|
| IDC: | \$400,000 |
| EQUIPMENT: | \$140,000 |
| LEASEHOLD: | \$50,000 |
| <hr/> | |
| TOTAL | \$590,000 |

ROCHESTER

MONTANA

**ANALYSIS OF THE IMPACT OF THE PROPOSED TAX TREATMENT
OF INTANGIBLE DRILLING COSTS ON DRILLING EXPENDITURES,
WELLS DRILLED, EMPLOYMENT & RESERVES FOUND - 1986- 1991**

| | |
|--------------------|-----------|
| 1984 DRILLING RIGS | \$36 |
| 1983 WELL COST | \$349,276 |
| BPT TAX RATE | 6.08% |

| CURRENT LAW | TREASURY PROPOSAL | | | REDUCTION IN | | |
|-------------|---|---|-------------------------------------|---|---------------------------------------|---|
| | TOTAL CASH AVAILABLE FOR DRILLING EXPENDITURES (\$mm) | J.A.S. AVAILABLE FOR DRILLING EXPENDITURES (\$mm) | J.A.S. DRILLING EXPENDITURES (\$mm) | TOTAL CASH AVAILABLE FOR DRILLING EXPENDITURES (\$mm) | CASH FOR DRILLING EXPENDITURES (\$mm) | REDUCTION IN DRILLING EXPENDITURES (\$mm) |
| 80 | \$244 | \$244 | n.a. | n.a. | n.a. | n.a. |
| 81 | \$630 | \$630 | n.a. | n.a. | n.a. | n.a. |
| 82 | \$377 | \$377 | n.a. | n.a. | n.a. | n.a. |
| 83 | \$170 | \$170 | n.a. | n.a. | n.a. | n.a. |
| 84 | \$170 | \$170 | n.a. | n.a. | n.a. | n.a. |
| 86 | \$170 | \$170 | \$103 | \$103 | \$67 | \$36 |
| 87 | \$170 | \$170 | \$85 | \$85 | \$85 | \$24 |
| 88 | \$170 | \$170 | \$92 | \$92 | \$78 | \$22 |
| 89 | \$170 | \$170 | \$93 | \$93 | \$77 | \$20 |
| 90 | \$170 | \$170 | \$95 | \$95 | \$75 | \$21 |
| 91 | \$170 | \$170 | \$97 | \$97 | \$73 | \$20 |
| TOTAL | \$1,019 | \$1,019 | \$564 | \$564 | \$455 | n.a. |
| AVERAGE | \$170 | \$170 | \$94 | \$94 | \$76 | \$17 |

AVERAGE IMPACT 1994-81:

REDUCTION IN DRILLING EXPENDITURES YEARLY
REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING:
REDUCTION IN NUMBER OF WELLS DRILLED YEARLY
REDUCTION IN DRILLING RIG RUNNING YEARLY
REDUCTION IN RESERVES ADDED AT \$12.00 PER BBL:
REDUCTION IN DAILY OIL AND GAS PRODUCTION:
REDUCTION IN OIL AND GAS SALES:
REDUCTION IN STATE GPT COLLECTIONS:

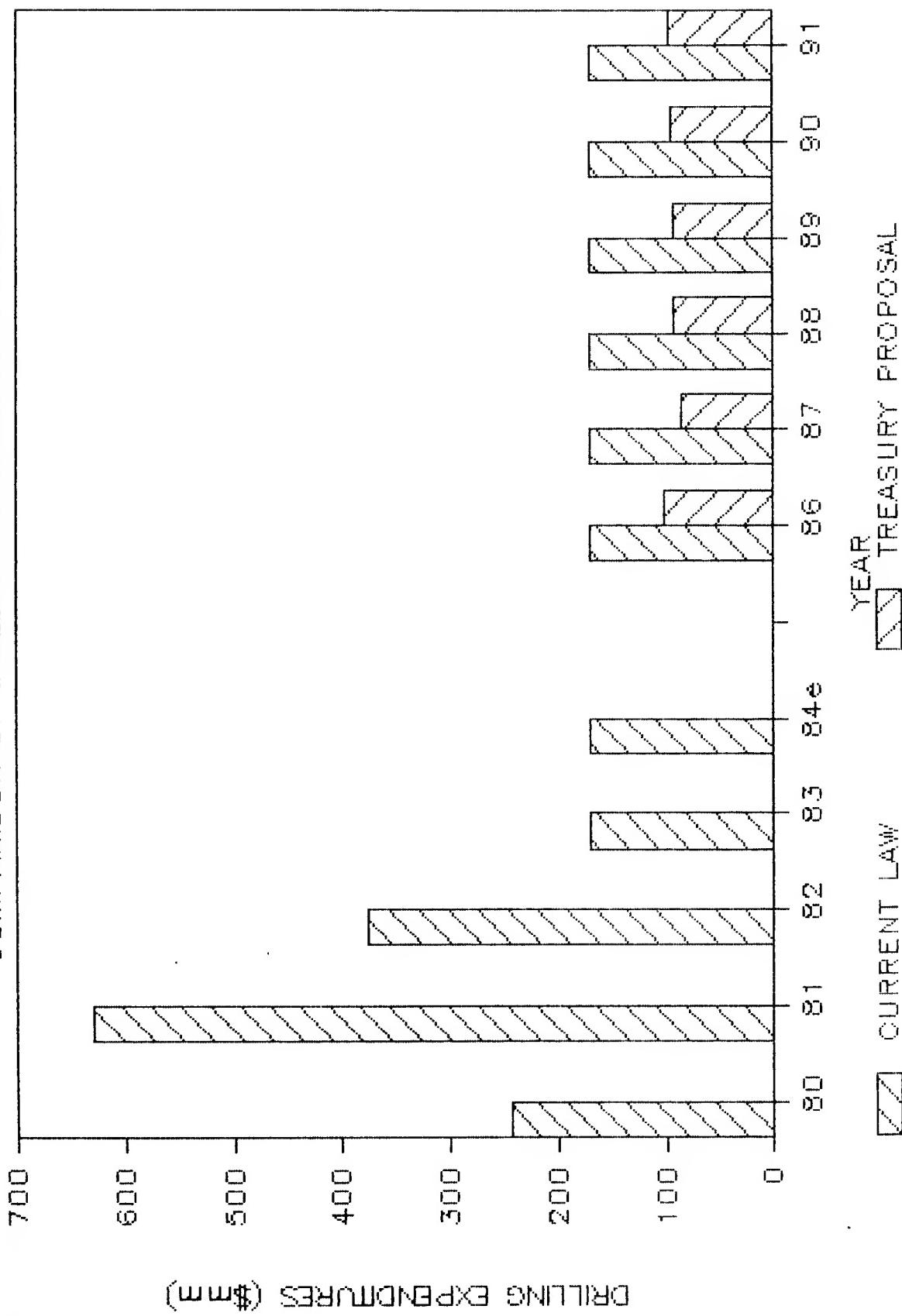
ASSUMPTIONS:

INDUSTRY EXPENDITURES ARE REDUCED BY ONE-THIRD IN 1986 DUE TO UNCERTAINTY AND REDUCED THIRD PARTY FUNDING
THIRD PARTY FUNDING IS REDUCED BY ONE-HALF IN 1986 DUE TO UNCERTAINTY IN TAX TREATMENT
AFTER 1986 INDUSTRY EXPENDITURES REMAIN AT TWO-THIRDS OF 1984 LEVELS + OR - REDUCED CASH FLOW FROM ACCELERATED TAX PAYMENTS.
AFTER 1986 THIRD PARTY FUNDING REMAIN AT ONE-HALF OF 1984 LEVELS + OR - REDUCED CASH FLOW FROM ACCELERATED TAX PAYMENTS.
1986 AVERAGE WELLHEAD PRICE WAS \$19.65/BBL.
A REDUCTION IN DRILLING EXPENDITURES OF ONE MILLION DOLLARS RESULTS IN A LOSS OF 50 JOBS

MT IMPACT OF IDC TAX PROPOSAL

COMPARISON OF DRILLING EXPENDITURES YEARLY

CHART ONE



MT IMPACT OF IDC TAX PROPOSAL

REDUCTION IN DRILLING EXPENDITURES YEARLY

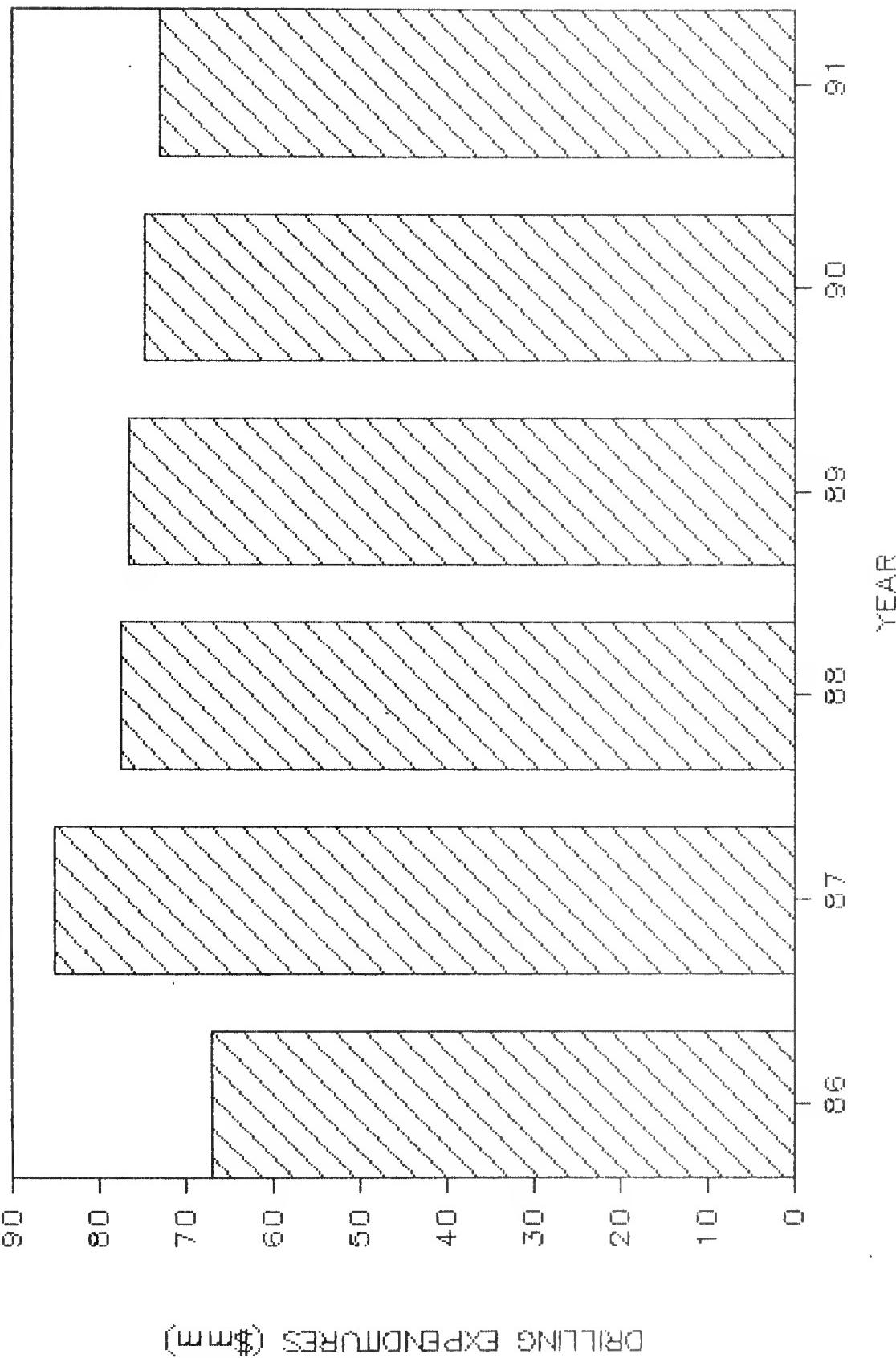


CHART THREE

MT IMPACT OF IDC TAX PROPOSAL
REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING:

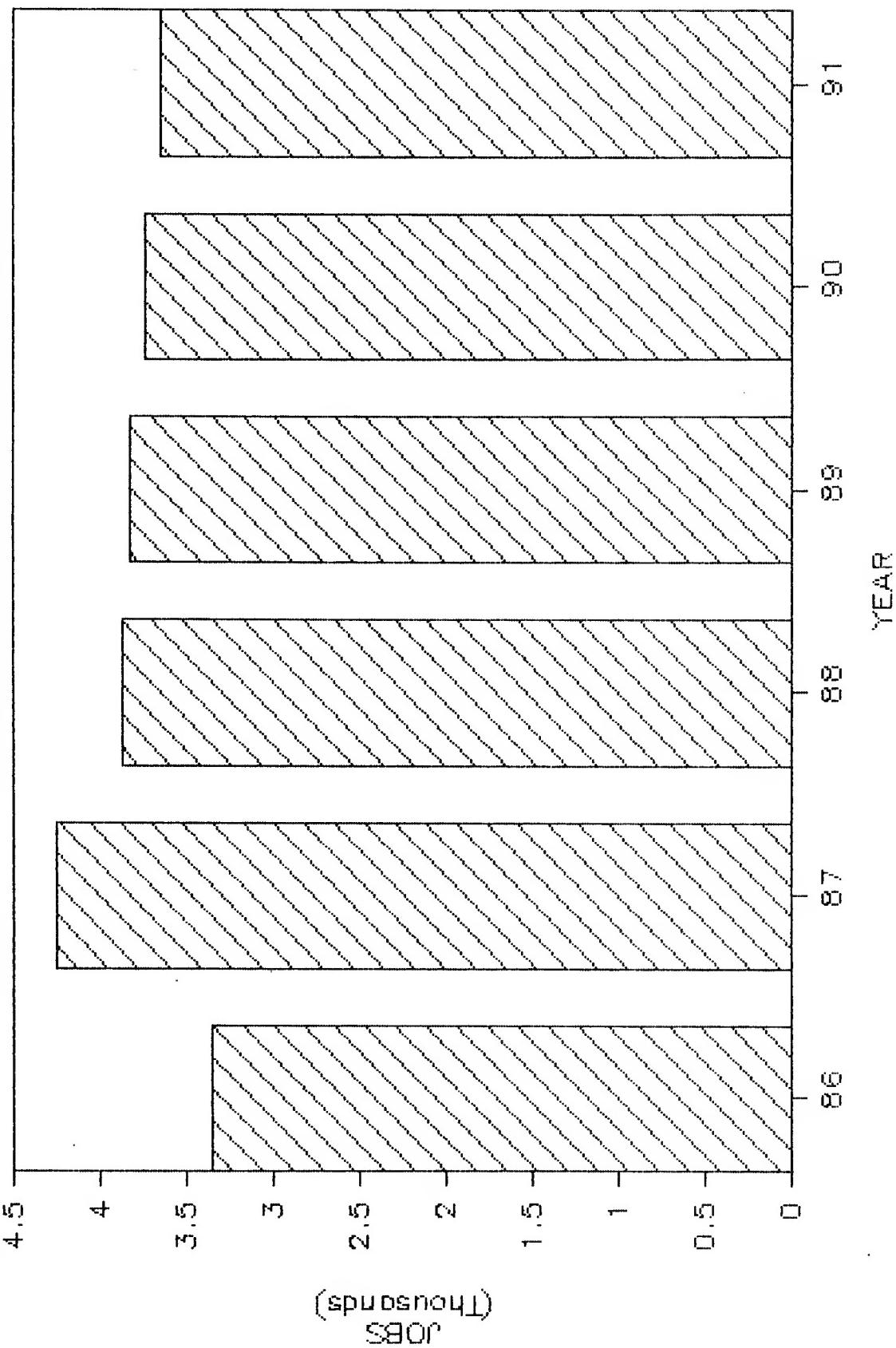


CHART FOUR

M T IMPACT OF IDC TAX PROPOSAL

REDUCTION IN NUMBER OF WELLS DRILLED YEARLY

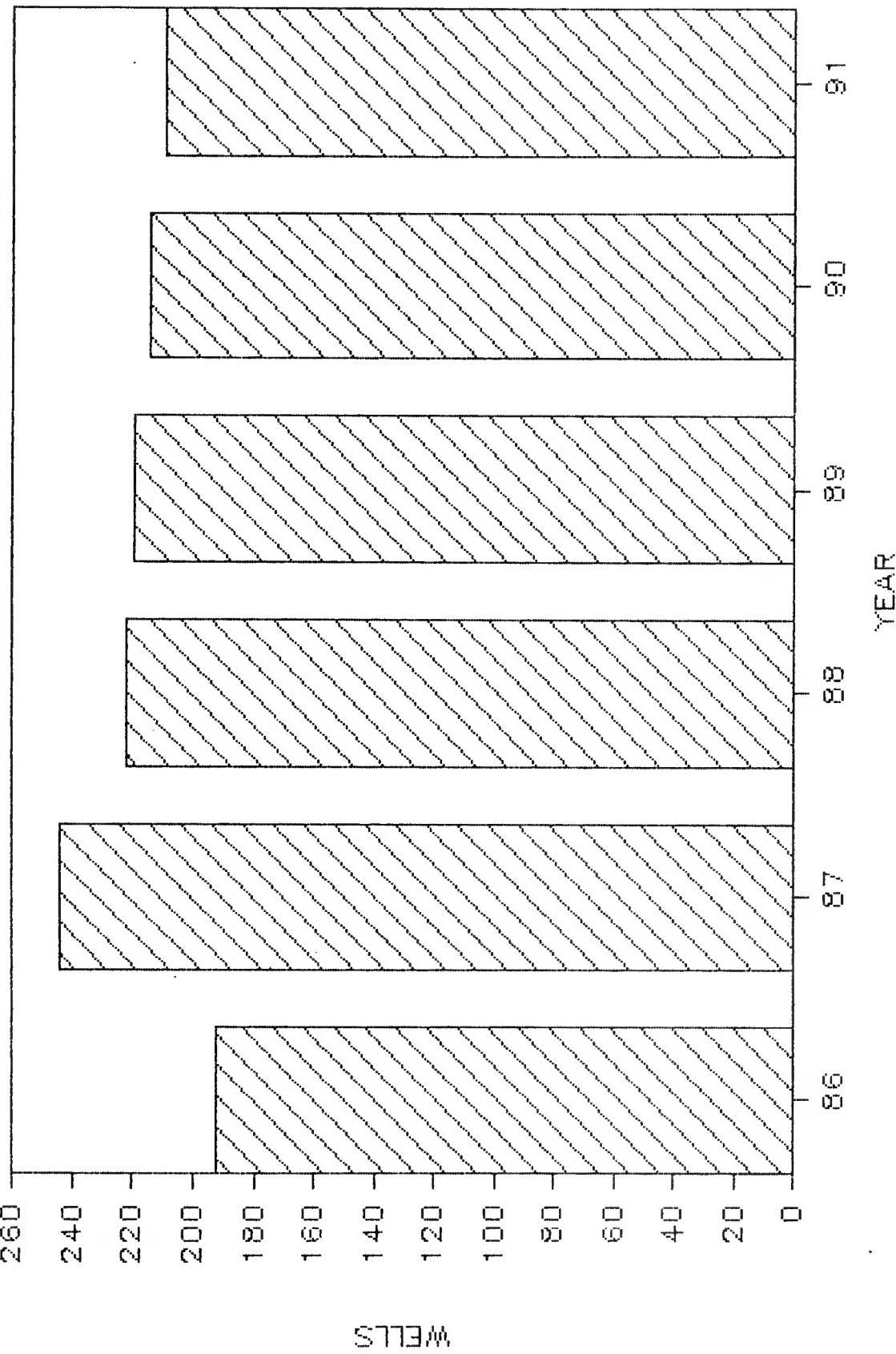
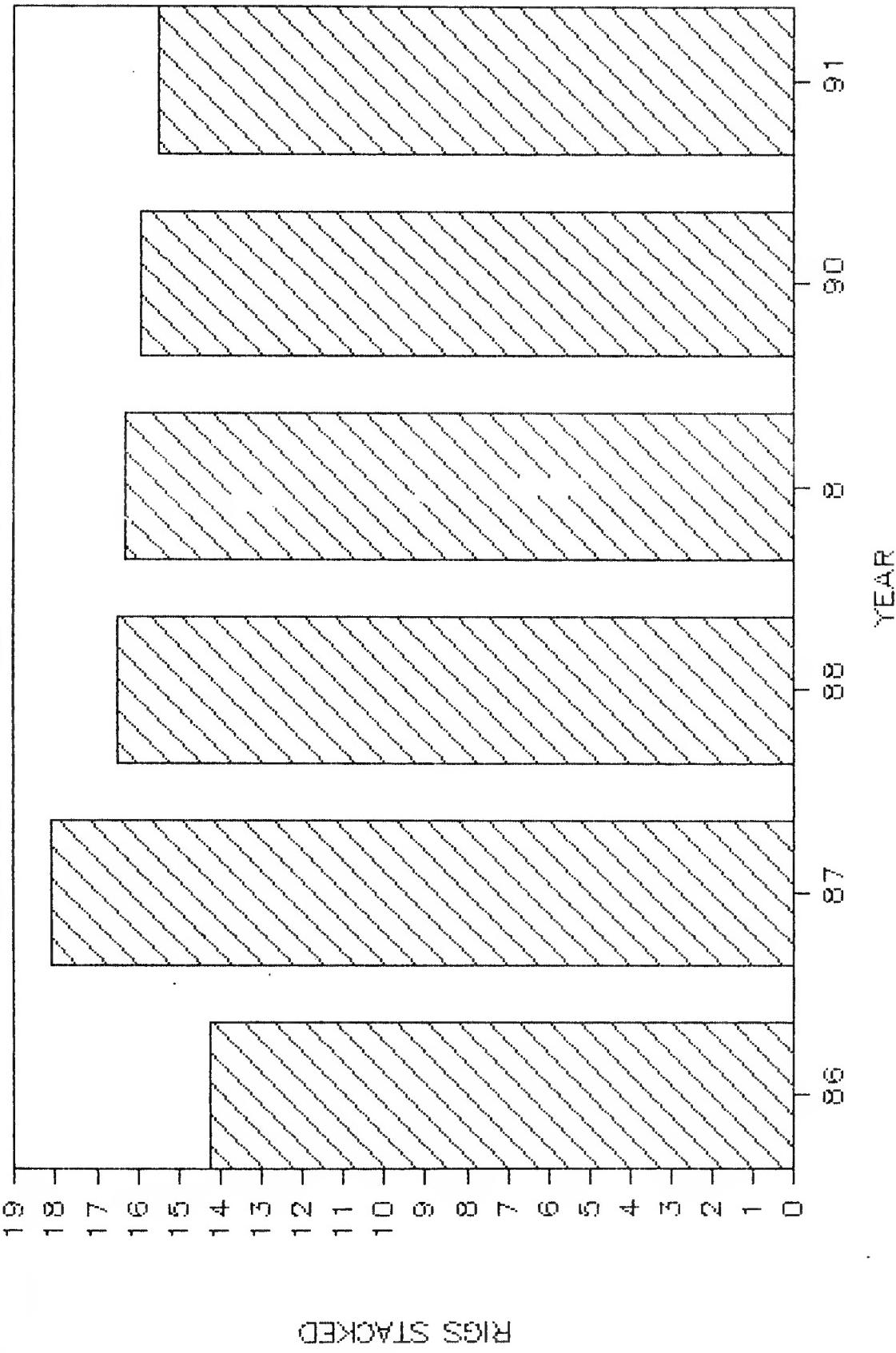


CHART FIVE

MT IMPACT OF IDC TAX PROPOSAL

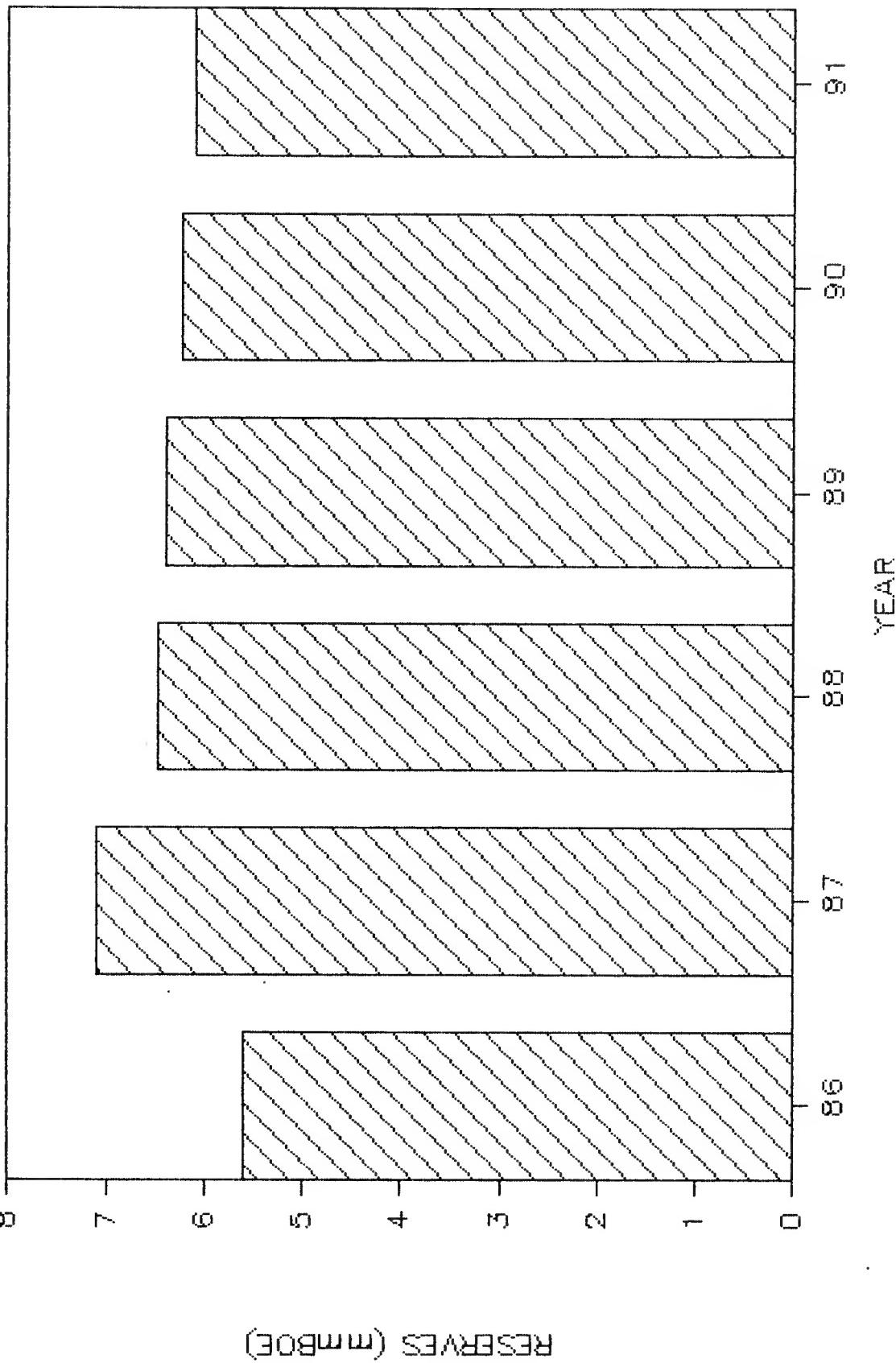
REDUCTION IN DRILLING RIGS RUNNING YEARLY



RIGS STACKED

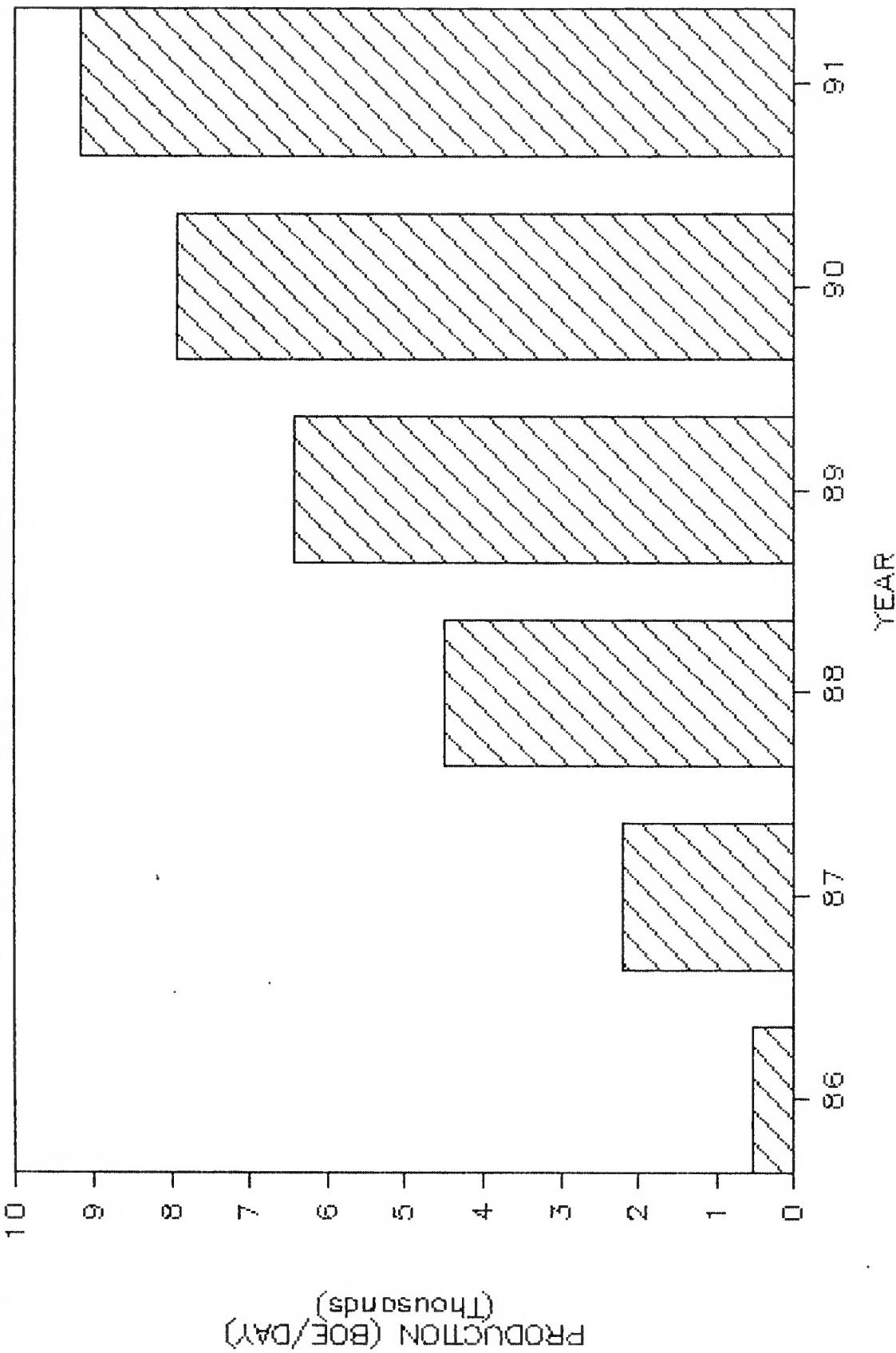
MT IMPACT OF IDC TAX PROPOSAL

REDUCTION IN RESERVES ADDED AT \$12.00 PER BOE:



MT IMPACT OF IDC TAX PROPOSAL

REDUCTION IN DAILY OIL AND GAS PRODUCTION:



IMPACT OF REMOVAL OF PERCENTAGE DEPLETION ON STRIPPER OIL WELLS AND ON THE MONTANA ECONOMY

Introduction

The purpose of this study is to determine the impact on the Montana economy of removing from the federal tax laws the provision for percentage depletion on stripper oil wells.

A stripper oil well is one that produces less than 10 barrels per day. The importance of stripper wells to domestic oil production is shown on Table One, Montana Historical Stripper Well Statistics 1980-83 With Projected Impact Of Removal Of Percentage Depletion in 1986. At year-end 1983, Montana had more than 2,673 stripper wells producing an average of 3.18 barrels per day. Total annual stripper well production in 1983 was 3,100,000 barrels of oil, or 10.46% of total Montana production. Total stripper well reserves at year end 1983 were 29,690,000 barrels.

Under current federal tax laws, independent oil and gas producers and royalty owners are allowed to deduct 15% of the gross revenues from a limited amount of their oil and gas production, provided that the amount of percentage depletion allowed cannot exceed 50% of the net income from a particular property. The amount of oil and gas subject to percentage depletion allowed cannot exceed an average daily production of 1,000 barrels of oil or 6,000 Mcf of gas.

Percentage depletion, when allowed and if greater than cost depletion, must be taken in lieu of cost depletion. Percentage depletion allowed is deducted from capitalized costs, but may continue to be taken even if all capitalized costs have been recovered. Cost depletion may be taken only to the extent of capitalized costs.

This study focuses on stripper wells operated by independent producers, who operate two out of every three stripper wells. Production from these wells is not subject to the windfall profit tax, and most stripper wells have very low or no cost basis, so there is little or no tax basis for cost depletion. Therefore, disallowing the percentage depletion deduction on stripper oil wells, for which cost depletion is unavailable, would result in a direct and measurable loss of after-tax revenues for independent producers and royalty owners, and a significant adverse impact on the Montana economy.

The loss of revenues for independent producers and royalty owners resulting from the removal of percentage depletion on all their oil and gas production would be even greater. However,

measuring this loss and its impact on the Montana economy is outside the scope of this study.

Major Findings

The study found that removing percentage depletion on stripper wells would have the following results in the first year alone:

- 222 stripper wells would be abandoned because they would no longer be economic to operate;
- domestic oil production would be reduced by 518 barrels per day due to premature abandonment, and by 16 barrels per day due to decreased drilling;
- oil and gas revenues would be reduced by \$5,063,253;
- royalty payments would fall by \$759,488;
- severance tax payments would drop by \$303,795;
- oil and gas drilling would be cut back by \$2,025,301;
- 461 jobs would be lost in the petroleum and other industries;

In addition, 5,140,140 barrels of proven developed oil reserves would be lost as the stripper wells are plugged and abandoned. This compares to 450,900,000 barrels stored in the National Strategic Petroleum Reserve at a cost to the taxpayers through fiscal 1984 of \$14,500,000,000.

Background on Percentage Depletion

Percentage depletion is a tax provision that dates back to before 1920 and applies not just to oil and gas, but to other natural resources such as coal. The tax laws often distinguish between capital and income so capital is returned for future investments. But as an oil well produces, the producer's capital is being steadily depleted. So the percentage depletion deduction was established to prevent a gradual loss of capital by leaving the producer with more after-tax dollars needed to drill new wells and, thereby, replace the depleted reserves.

From 1926 to 1969, oil operators were generally allowed to deduct 27.5% of gross income from an oil property as percentage depletion. The 1969 Tax Reform Act cut the depletion percentage for oil properties to 22%. In 1975, a new tax law eliminated percentage depletion on oil properties for all major oil companies. But the law allowed small, non-integrated independent producers to keep their percentage depletion deduction at 22% until 1980, then gradually declining to 15% in 1984.

Stripper Well Economics

Tables Two, Three and Four show the estimated pre-tax and after-tax proceeds to major and independent producers with and without percentage depletion for the years 1974 through 1984. Average royalties are estimated at 15%, and severance taxes at 6%. Operating costs were estimated based on a survey of petroleum engineering firms and are the major variable in these three tables. Table Two is based on low operating costs; Table Three on medium operating costs, and Table Four on high operating costs. For the economic impact projections, the stripper well economics summarized in Table Three were used.

Chart One, Net Pre-Tax Proceeds to Independent Stripper Well Producers, shows that the pre-tax proceeds have dropped from \$14.19 per barrel in 1981 to \$7.93 per barrel in 1984. Chart Two, Value of Depletion to Independent Stripper Well Producers, shows that the value of percentage depletion to the independent producer has dropped from \$2.58 per barrel in 1981 to \$1.83 per barrel in 1984. This downward trend is expected to continue in 1986.

Note in Table Three that an independent producer in 1984 would receive net after-tax income of \$5.80 per barrel under the current law, but only \$3.96 per barrel without percentage depletion. Thus, the net effect of eliminating percentage depletion in 1984 would be \$1.83 per barrel.

The economic life of these stripper wells is shortened by reductions in after-tax income regardless of whether the decrease results from falling prices, rising costs, or higher tax rates.

As seen in Chart Three, Net After-Tax Proceeds To Independent Stripper Well Producers, net after-tax proceeds have already dropped from \$9.67 per barrel in 1981 to \$5.80 per barrel in 1984. An additional tax burden resulting from removing percentage depletion would shorten the economic life of the average stripper well by 3.75 years, assuming there is no



further decline in oil prices. This calculation is based on the average stripper well life of 25.8 years, the average stripper well production decline rate of 5.5% per year, and the change in net after-tax revenue to the operator from removal of percentage depletion. (See Table Five, National Stripper Well Summary, 1954-1983.)

Production and Reserve Losses

Chart Four, Montana Number of Stripper Wells, shows the total number of stripper wells operating annually in Montana from 1980 through 1986. An estimated 222 stripper wells would be abandoned in 1986 alone due to the removal of percentage depletion. As seen on Chart Five, Montana Abandonment of Stripper Wells, this would greatly increase the annual abandonments in 1982-84. These abandonments would cause stripper well production to drop by 518 barrels per day, which would have to be replaced by imported oil. (See Chart Six, Montana Stripper Well Production, and Table Six, Summary Of The Impact Of The Removal Of Percentage Depletion For Stripper Well Properties.)

The proven developed oil reserves attributable to these wells would no longer be available. As shown on Chart Seven, Montana Stripper Well Reserves, and Table Six, these lost reserves total 5,140,140 barrels.

Most oil wells eventually become stripper wells toward the end of their producing life. As stripper wells approach their economic limits and become candidates for plugging, only about 25% of the original oil in place has been produced by the primary reservoir drive. The use of secondary and other enhanced recovery measures can increase the resource recovered by an additional 15%. However, if a producer wants to make an additional investment in an enhanced recovery project, the first thing he needs is existing wells. If the stripper wells have been prematurely plugged, they are obviously unavailable for enhanced recovery projects. Therefore, prolonging the life of producing oil wells is even more important when one considers that the United States holds 300 billion barrels of discovered but unproduced oil that can only be tapped through enhanced recovery methods.

Adverse Economic Impact

As stated earlier, the reduction in oil production would cause the revenues to independent oil producers to drop by \$5,063,253, reduce royalty payments by \$759,488 and reduce



severance tax payments by \$303,795. Based on historical industry averages, every dollar in lost oil and gas revenue by independent producers results in \$0.40 less spent to drill new wells. Thus, 1985 drilling expenditures would drop by nearly \$2,025,301. (See Table Six.)

Economic research has found that, for every \$1,000,000 of oil and gas revenue lost, employment drops by 91 jobs. Of these lost jobs, only 39 would be in the petroleum industry, while 52 would be in other industries affected indirectly by the reduced economic activity. Therefore, a total of 461 jobs would be lost in 1985 alone.

Conclusion

Eliminating percentage depletion on stripper well production would increase abandonments of stripper wells and significantly reduce drilling and production activity. The subsequent impact on Montana's economy would be severe. Montana's oil resource base available for secondary and other enhanced recovery projects would be greatly reduced. The major beneficiaries of such an ill-advised change in the tax laws would be foreign nations increasing their oil exports to the United States.

TABLE ONE

MT
SEVERANCE TAX RATE 6.000%

MONTANA
HISTORICAL STRIPPER WELL STATISTICS 1980-1983
WITH PROJECTED IMPACT OF REMOVAL
OF PERCENTAGE DEPLETION IN 1986

| YEAR | NUMBER | STRIPPER WELL | | | AVERAGE DAILY PRODUCTION PER STRIPPER WELL (BPD) | TOTAL STRIPPER WELL ANNUAL PRODUCTION (mmBBLs) | TOTAL AVERAGE DAILY PRODUCTION (BPD) | TOTAL STRIPPER WELL PRODUCTION (BPD) | TOTAL STRIPPER WELL PRODUCTION (BPD) | PERCENT STRIPPER WELL PRODUCTION |
|-------|--------|---------------|-----------|---------|--|---|--|--|--|---|
| | | ABANDONMENTS | ADDITIONS | ACRES | | | | | | |
| 1979 | 1,996 | | | | | | | | | |
| 1980 | 2,082 | 28 | 114 | 61,820 | 3.56 | 2.71 | 29.58 | 7,404 | 80,831 | 9.16% |
| 1981 | 2,058 | 17 | (7) | 106,210 | 3.66 | 2.75 | 30.81 | 7,526 | 84,419 | 8.92% |
| 1982 | 2,243 | 55 | 240 | 89,720 | 3.52 | 2.88 | 30.92 | 7,893 | 84,704 | 9.32% |
| 1983 | 2,673 | 0 | 430 | 115,760 | 3.18 | 3.10 | 29.67 | 8,501 | 81,274 | 10.48% |
| 1984e | 2,981 | 28 | 335 | 129,077 | 3.18 | 3.47 | 29.67 | 9,504 | 81,288 | 11.69% |
| 1986p | 2,759 | 222 | 0 | 119,481 | 3.25 | 3.27 | 29.48 | 8,970 | 80,754 | 11.11% |

STRIPPER WELL RESERVES

| YEAR | PRIMARY (mmBBLs) | SECONDARY (mmBBLs) | TOTAL (mmBBLs) |
|-------|---------------------|-----------------------|-------------------|
| | | | |
| 1979 | | | |
| 1980 | 16.83 | 14.90 | 33.22 |
| 1981 | 21.12 | 3.08 | 24.19 |
| 1982 | 25.88 | 0.75 | 26.63 |
| 1983 | 28.20 | 1.49 | 29.69 |
| 1984e | 31.53 | 1.67 | 33.19 |
| 1986p | 26.64 | 1.41 | 28.05 |

TABLE TWO

**ESTIMATED PRE-TAX AND AFTER-TAX PROCEEDS
TO THE PRODUCER WITH AND WITHOUT PERCENTAGE DEPLETION
LOW OPERATING COST**

| YEAR | AVERAGE CRUDE OIL PRICE YEAR | DECEMBER CRUDE OIL PRICE (\$/BBL) | WPT BASE PRICE (\$/BBL) | NET MAJOR CRUDE OIL PRICE (\$/BBL) | NET INDEPENDENT CRUDE OIL PRICE (\$/BBL) | SEVERANCE ROYALTY (\$/BBL) | LOW TAX (\$/BBL) | OPERATING COST (\$/BBL) |
|------|---------------------------------------|--|----------------------------------|--|--|----------------------------------|------------------------|-------------------------------|
| | | | | | | | | |
| 1974 | \$7.16 | \$11.28 | N.A. | \$7.16 | \$7.16 | \$1.07 | \$0.43 | \$3.53 |
| 1975 | \$8.51 | \$13.18 | N.A. | \$8.51 | \$8.51 | \$1.28 | \$0.51 | \$4.04 |
| 1976 | \$9.19 | \$13.37 | N.A. | \$9.19 | \$9.19 | \$1.38 | \$0.55 | \$4.39 |
| 1977 | \$9.98 | \$14.73 | N.A. | \$9.98 | \$9.98 | \$1.50 | \$0.60 | \$4.83 |
| 1978 | \$10.90 | \$15.10 | N.A. | \$10.90 | \$10.90 | \$1.64 | \$0.66 | \$5.35 |
| 1979 | \$15.06 | \$24.58 | N.A. | \$15.06 | \$15.06 | \$2.26 | \$0.91 | \$5.97 |
| 1980 | \$27.55 | \$37.83 | \$17.18 | \$22.37 | \$24.96 | \$3.74 | \$1.50 | \$6.53 |
| 1981 | \$35.26 | \$36.22 | \$18.84 | \$25.41 | \$30.34 | \$4.55 | \$1.83 | \$6.93 |
| 1982 | \$32.81 | \$32.75 | \$20.20 | \$25.25 | \$29.03 | \$4.35 | \$1.75 | \$7.42 |
| 1983 | \$30.08 | \$30.00 | \$21.27 | \$24.79 | \$30.08 | \$4.51 | \$1.81 | \$8.16 |
| 1984 | \$28.75 | \$26.75 | \$21.98 | \$24.69 | \$28.75 | \$4.31 | \$1.73 | \$8.89 |

| YEAR | MAJOR PRODUCER | INDEPENDENT PRODUCER | 50% TAX BRACKET AFTER TAX PROCEEDS WITH DEPLETION | | | 50% TAX BRACKET AFTER TAX PROCEEDS WITHOUT DEPLETION | | | NET EFFECT OF REMOVAL OF DEPLETION |
|------|-----------------------------|-----------------------------|---|-------------------|-------------------------|--|-------------------------|-----------------------|---|
| | NET PROCEEDS (\$/BBL) | NET PROCEEDS (\$/BBL) | PERCENTAGE DEPLETION (\$/BBL) | MAJOR (\$/BBL) | INDEPENDENT (\$/BBL) | MAJOR (\$/BBL) | INDEPENDENT (\$/BBL) | DEPLETION (\$/BBL) | |
| 1974 | \$2.12 | \$2.12 | \$1.34 | \$1.06 | \$1.73 | \$1.06 | \$1.06 | \$0.67 | |
| 1975 | \$2.68 | \$2.68 | \$1.59 | \$1.34 | \$2.14 | \$1.34 | \$1.34 | \$0.80 | |
| 1976 | \$2.87 | \$2.87 | \$1.72 | \$1.43 | \$2.29 | \$1.43 | \$1.43 | \$0.86 | |
| 1977 | \$3.06 | \$3.06 | \$1.87 | \$1.53 | \$2.46 | \$1.53 | \$1.53 | \$0.93 | |
| 1978 | \$3.26 | \$3.26 | \$2.04 | \$1.63 | \$2.65 | \$1.63 | \$1.63 | \$1.02 | |
| 1979 | \$5.93 | \$5.93 | \$2.82 | \$2.96 | \$4.37 | \$2.96 | \$2.96 | \$1.41 | |
| 1980 | \$10.59 | \$13.18 | \$4.67 | \$5.30 | \$8.92 | \$5.30 | \$6.59 | \$2.33 | |
| 1981 | \$12.10 | \$17.03 | \$5.16 | \$6.05 | \$11.09 | \$6.05 | \$8.51 | \$2.58 | |
| 1982 | \$11.73 | \$15.51 | \$4.44 | \$5.86 | \$9.98 | \$5.86 | \$7.76 | \$2.22 | |
| 1983 | \$10.31 | \$15.60 | \$4.09 | \$5.16 | \$9.84 | \$5.16 | \$7.80 | \$2.05 | |
| 1984 | \$9.76 | \$13.82 | \$3.67 | \$4.88 | \$8.74 | \$4.88 | \$6.91 | \$1.83 | |

TABLE THREE

ESTIMATED PRE-TAX AND AFTER-TAX PROCEEDS
TO THE PRODUCER WITH AND WITHOUT PERCENTAGE DEPLETION
MID OPERATING COST

| YEAR | AVERAGE CRUDE OIL PRICE (\$/BBL) | DECEMBER CRUDE OIL PRICE (\$/BBL) | WPT BASE PRICE (\$/BBL) | NET MAJOR CRUDE OIL PRICE (\$/BBL) | NET INDEPENDENT CRUDE OIL PRICE (\$/BBL) | SEVERANCE ROYALTY (\$/BBL) | MID TAX (\$/BBL) | MID OPERATING COST (\$/BBL) |
|------|---|--|----------------------------------|--|--|----------------------------------|------------------------|--------------------------------------|
| | | | | | | | | |
| | | | | | | | | |
| 1974 | \$7.16 | \$11.28 | N.A. | \$7.16 | \$7.16 | \$1.07 | \$0.43 | \$3.72 |
| 1975 | \$8.51 | \$13.18 | N.A. | \$8.51 | \$8.51 | \$1.28 | \$0.51 | \$4.27 |
| 1976 | \$9.19 | \$13.37 | N.A. | \$9.19 | \$9.19 | \$1.38 | \$0.55 | \$4.90 |
| 1977 | \$9.98 | \$14.73 | N.A. | \$9.98 | \$9.98 | \$1.50 | \$0.60 | \$5.63 |
| 1978 | \$10.90 | \$15.10 | N.A. | \$10.90 | \$10.90 | \$1.64 | \$0.66 | \$6.46 |
| 1979 | \$15.06 | \$24.58 | N.A. | \$15.06 | \$15.06 | \$2.26 | \$0.91 | \$7.42 |
| 1980 | \$27.55 | \$37.83 | \$17.18 | \$22.37 | \$24.96 | \$3.74 | \$1.50 | \$8.51 |
| 1981 | \$35.26 | \$36.22 | \$18.84 | \$25.41 | \$30.34 | \$4.55 | \$1.83 | \$9.77 |
| 1982 | \$32.81 | \$32.75 | \$20.20 | \$25.25 | \$29.03 | \$4.35 | \$1.75 | \$11.22 |
| 1983 | \$30.08 | \$30.00 | \$21.27 | \$24.79 | \$30.08 | \$4.51 | \$1.81 | \$12.88 |
| 1984 | \$28.75 | \$26.75 | \$21.98 | \$24.69 | \$28.75 | \$4.31 | \$1.73 | \$14.78 |

| YEAR | MAJOR PRODUCER | INDEPENDENT PRODUCER | PERCENTAGE DEPLETION | 50% TAX BRACKET AFTER TAX PROCEEDS WITH DEPLETION | | 50% TAX BRACKET AFTER TAX PROCEEDS WITHOUT DEPLETION | | NET EFFECT OF REMOVAL OF |
|------|-----------------------------|-----------------------------|-------------------------|---|-------------------------|--|-------------------------|--------------------------------------|
| | NET PROCEEDS (\$/BBL) | NET PROCEEDS (\$/BBL) | (\$/BBL) | MAJOR (\$/BBL) | INDEPENDENT (\$/BBL) | MAJOR (\$/BBL) | INDEPENDENT (\$/BBL) | DEPLETION (\$/BBL) |
| | | | | | | | | |
| 1974 | \$1.93 | \$1.93 | \$1.34 | \$0.97 | \$1.64 | \$0.97 | \$0.97 | \$0.67 |
| 1975 | \$2.45 | \$2.45 | \$1.59 | \$1.22 | \$2.02 | \$1.22 | \$1.22 | \$0.80 |
| 1976 | \$2.36 | \$2.36 | \$1.72 | \$1.18 | \$2.04 | \$1.18 | \$1.18 | \$0.86 |
| 1977 | \$2.25 | \$2.25 | \$1.87 | \$1.13 | \$2.06 | \$1.13 | \$1.13 | \$0.93 |
| 1978 | \$2.15 | \$2.15 | \$2.04 | \$1.07 | \$2.09 | \$1.07 | \$1.07 | \$1.02 |
| 1979 | \$4.48 | \$4.48 | \$2.82 | \$2.24 | \$3.65 | \$2.24 | \$2.24 | \$1.41 |
| 1980 | \$8.61 | \$11.20 | \$4.67 | \$4.30 | \$7.93 | \$4.30 | \$5.60 | \$2.33 |
| 1981 | \$9.26 | \$14.19 | \$5.16 | \$4.63 | \$9.67 | \$4.63 | \$7.09 | \$2.58 |
| 1982 | \$7.93 | \$11.71 | \$4.44 | \$3.96 | \$8.08 | \$3.96 | \$5.85 | \$2.22 |
| 1983 | \$5.59 | \$10.88 | \$4.09 | \$2.80 | \$7.49 | \$2.80 | \$5.44 | \$2.05 |
| 1984 | \$3.87 | \$7.93 | \$3.67 | \$1.93 | \$5.80 | \$1.93 | \$3.96 | \$1.83 |

TABLE FOUR

**ESTIMATED PRE-TAX AND AFTER-TAX PROCEEDS
TO THE PRODUCER WITH AND WITHOUT PERCENTAGE DEPLETION
HIGH OPERATING COST**

| YEAR | AVERAGE CRUDE OIL PRICE YEAR | DECEMBER CRUDE OIL PRICE (\$/BBL) | WPT BASE PRICE (\$/BBL) | NET MAJOR CRUDE OIL PRICE (\$/BBL) | NET INDEPENDENT CRUDE OIL PRICE (\$/BBL) | SEVERANCE ROYALTY (\$/BBL) | HIGH TAX (\$/BBL) | HIGH OPERATING COST (\$/BBL) |
|------|---------------------------------------|--|----------------------------------|--|--|----------------------------------|-------------------------|---------------------------------------|
| | | | | | | | | |
| 1974 | \$7.16 | \$11.28 | N.A. | \$7.16 | \$7.16 | \$1.07 | \$0.43 | \$3.85 |
| 1975 | \$8.51 | \$13.18 | N.A. | \$8.51 | \$8.51 | \$1.28 | \$0.51 | \$4.56 |
| 1976 | \$9.19 | \$13.37 | N.A. | \$9.19 | \$9.19 | \$1.38 | \$0.55 | \$5.42 |
| 1977 | \$9.98 | \$14.73 | N.A. | \$9.98 | \$9.98 | \$1.50 | \$0.60 | \$6.43 |
| 1978 | \$10.90 | \$15.10 | N.A. | \$10.90 | \$10.90 | \$1.64 | \$0.66 | \$7.63 |
| 1979 | \$15.06 | \$24.58 | N.A. | \$15.06 | \$15.06 | \$2.26 | \$0.91 | \$9.05 |
| 1980 | \$27.55 | \$37.83 | \$17.18 | \$22.37 | \$24.96 | \$3.74 | \$1.50 | \$10.74 |
| 1981 | \$35.26 | \$36.22 | \$18.84 | \$25.41 | \$30.34 | \$4.55 | \$1.83 | \$12.74 |
| 1982 | \$32.81 | \$32.75 | \$20.20 | \$25.25 | \$29.03 | \$4.35 | \$1.75 | \$15.12 |
| 1983 | \$30.08 | \$30.00 | \$21.27 | \$24.79 | \$30.08 | \$4.51 | \$1.81 | \$17.94 |
| 1984 | \$28.75 | \$26.75 | \$21.98 | \$24.69 | \$28.75 | \$4.31 | \$1.73 | \$21.29 |

| YEAR | MAJOR PRODUCER | INDEPENDENT PRODUCER | PERCENTAGE DEPLETION (\$/BBL) | 50% TAX BRACKET AFTER TAX PROCEEDS WITH DEPLETION | | 50% TAX BRACKET AFTER TAX PROCEEDS WITHOUT DEPLETION | | NET EFFECT OF REMOVAL OF DEPLETION (\$/BBL) |
|------|-----------------------------|-----------------------------|-------------------------------------|---|-------------------------|--|-------------------------|---|
| | NET PROCEEDS (\$/BBL) | NET PROCEEDS (\$/BBL) | | MAJOR (\$/BBL) | INDEPENDENT (\$/BBL) | MAJOR (\$/BBL) | INDEPENDENT (\$/BBL) | |
| 1974 | \$1.81 | \$1.81 | \$1.34 | \$0.90 | \$1.57 | \$0.90 | \$0.90 | \$0.67 |
| 1975 | \$2.16 | \$2.16 | \$1.59 | \$1.08 | \$1.87 | \$1.08 | \$1.08 | \$0.80 |
| 1976 | \$1.84 | \$1.84 | \$1.72 | \$0.92 | \$1.78 | \$0.92 | \$0.92 | \$0.86 |
| 1977 | \$1.46 | \$1.46 | \$1.87 | \$0.73 | \$1.66 | \$0.73 | \$0.73 | \$0.93 |
| 1978 | \$0.98 | \$0.98 | \$2.04 | \$0.49 | \$1.51 | \$0.49 | \$0.49 | \$1.02 |
| 1979 | \$2.85 | \$2.85 | \$2.82 | \$1.42 | \$2.83 | \$1.42 | \$1.42 | \$1.41 |
| 1980 | \$6.38 | \$8.97 | \$4.67 | \$3.19 | \$6.82 | \$3.19 | \$4.49 | \$2.33 |
| 1981 | \$6.29 | \$11.22 | \$5.16 | \$3.15 | \$8.19 | \$3.15 | \$5.61 | \$2.58 |
| 1982 | \$4.03 | \$7.81 | \$3.90 | \$2.01 | \$5.86 | \$2.01 | \$3.90 | \$1.95 |
| 1983 | \$0.53 | \$5.82 | \$2.91 | \$0.27 | \$4.36 | \$0.27 | \$2.91 | \$1.45 |
| 1984 | (\$2.64) | \$1.42 | \$0.71 | (\$1.32) | \$1.07 | (\$1.32) | \$0.71 | \$0.36 |

TABLE FIVE

NATIONAL STRIPPER WELL SUMMARY
1954 - 1983

| YEAR ENDING DECEMBER 31 | NUMBER OF STRIPPER WELLS | NUMBER OF ABANDONMENTS | NUMBER OF ADDITIONS | AVERAGE DAILY PRODUCTION PER WELL (BPD) |
|--|-----------------------------|------------------------------|---------------------------|--|
| 1954 | 327,412 | 11,318 | 19,133 | 3.62 |
| 1955 | 345,126 | 9,968 | 27,682 | 3.68 |
| 1956 | 357,716 | 8,996 | 21,586 | 3.72 |
| 1957 | 359,803 | 8,651 | 10,738 | 3.62 |
| 1958 | 361,062 | 9,788 | 11,047 | 3.88 |
| 1959 | 376,735 | 11,451 | 27,124 | 3.88 |
| 1960 | 403,323 | 15,434 | 42,022 | 3.92 |
| 1961 | 406,102 | 16,977 | 19,756 | 3.99 |
| 1962 | 406,051 | 16,224 | 16,173 | 3.91 |
| 1963 | 401,031 | 14,363 | 9,343 | 3.79 |
| 1964 | 394,107 | 14,476 | 7,552 | 3.72 |
| 1965 | 398,299 | 15,456 | 19,648 | 4.05 |
| 1966 | 380,549 | 16,207 | (1,543) | 3.49 |
| 1967 | 376,851 | 14,986 | 11,288 | 3.63 |
| 1968 | 367,205 | 20,496 | 10,850 | 3.62 |
| 1969 | 358,650 | 15,618 | 7,063 | 3.47 |
| 1970 | 359,130 | 15,631 | 16,111 | 3.37 |
| 1971 | 353,696 | 18,421 | 12,987 | 3.58 |
| 1972 | 359,471 | 13,483 | 19,258 | 3.13 |
| 1973 | 355,229 | 13,756 | 9,514 | 2.97 |
| 1974 | 366,095 | 13,779 | 24,645 | 3.08 |
| 1975 | 367,872 | 13,478 | 15,255 | 2.93 |
| 1976 | 365,733 | 9,916 | 7,777 | 2.93 |
| 1977 | 368,930 | 9,000 | 12,197 | 2.91 |
| 1978 | 374,635 | 8,380 | 14,085 | 2.86 |
| 1979 | 386,310 | 7,668 | 19,343 | 2.79 |
| 1980 | 395,176 | 6,614 | 15,480 | 2.77 |
| 1981 | 409,539 | 7,215 | 21,578 | 2.85 |
| 1982 | 416,493 | 9,426 | 16,380 | 2.90 |
| 1983 | 441,501 | 11,032 | 36,040 | 2.87 |
| 1954-1983 MEAN | 377,994 | 12,607 | 16,670 | 3.40 |
| AVERAGE NUMBER OF ADDITIONS AND ABANDONMENTS | | | 14,639 | |
| MEAN STRIPPER WELL PRODUCING LIFE | | | 25.8 YEARS | |

TABLE SIX

SEFFECT

SUMMARY OF THE IMPACT OF THE REMOVAL OF PERCENTAGE
DEPLETION FOR STRIPPER WELL PROPERTIES

LOSS OF CRUDE OIL

| EFFECT OF REMOVAL OF PERCENTAGE DEPLETION | NATIONALLY | MONTANA |
|---|---------------|----------------------|
| STRIPPER WELLS AS OF 1/1/1984 | 441,501 | 2,673 |
| STRIPPER WELLS ABANDONED | 36,597 | 222 Wells |
| DIL RESERVES LOST DUE TO PREMATURE ABANDONMENT* | 849,000,000 | 5,140,140 Bbls. |
| REDUCED DIL PRODUCTION DUE TO: | | |
| PREMATURE ABANDONMENT | 78,910 | 518 BPD |
| DECREASED 1986 DRILLING | 2,400 | 16 BPD |
| TOTAL | 81,310 | 534 BPD |
| REDUCTION IN ANNUAL DIL AND GAS SALES | \$771,630,000 | \$5,063,253 PER YEAR |
| REDUCTION IN ROYALTY PAYMENTS | \$115,700,000 | \$759,488 PER YEAR |
| REDUCTION IN SEVERANCE TAX PAYMENTS | \$61,700,000 | \$303,795 PER YEAR |
| REDUCTION IN 1986 DRILLING | \$308,600,000 | \$2,025,301 PER YEAR |
| REDUCTION IN JOBS | 70,200 | 461 |

* Reserves figure is cumulative. All others are first year only.

BASIS:

- Two out of every three stripper wells are operated by independents.
- Most stripper wells have zero cost basis resulting in no cost depletion being available.
- The removal of percentage depletion results in the shortening of stripper well economic life by 3.75 years.
- Stripper wells operated by independent producers generally are exempt from windfall profits taxes.
- For every one million dollars of oil and gas revenue lost, employment decreases by 91 jobs (39 direct jobs in the petroleum industry and 52 indirect jobs in other industries).
- The average wellhead crude oil price for stripper wells will be approximately \$26.00 per barrel in 1986.
- Every dollar in lost oil and gas revenue results in \$0.40 less spent to drill new wells.

CHART ONE

NET PRE-TAX PROCEEDS
TO INDEPENDENT STRIPPER WELL PRODUCERS

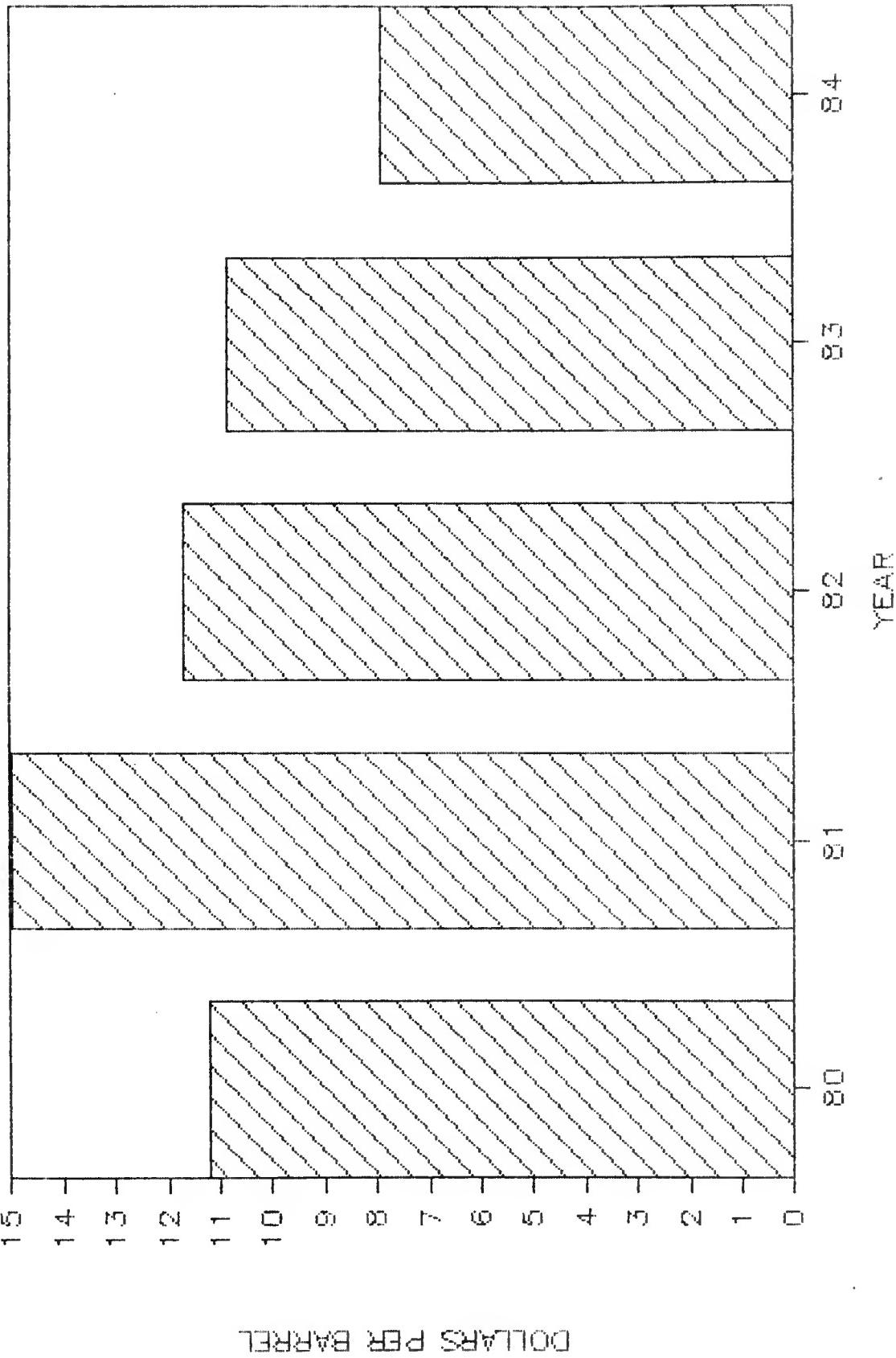


CHART TWO

VALUE OF DEPLETION
TO INDEPENDENT STRIPPER WELL PRODUCERS

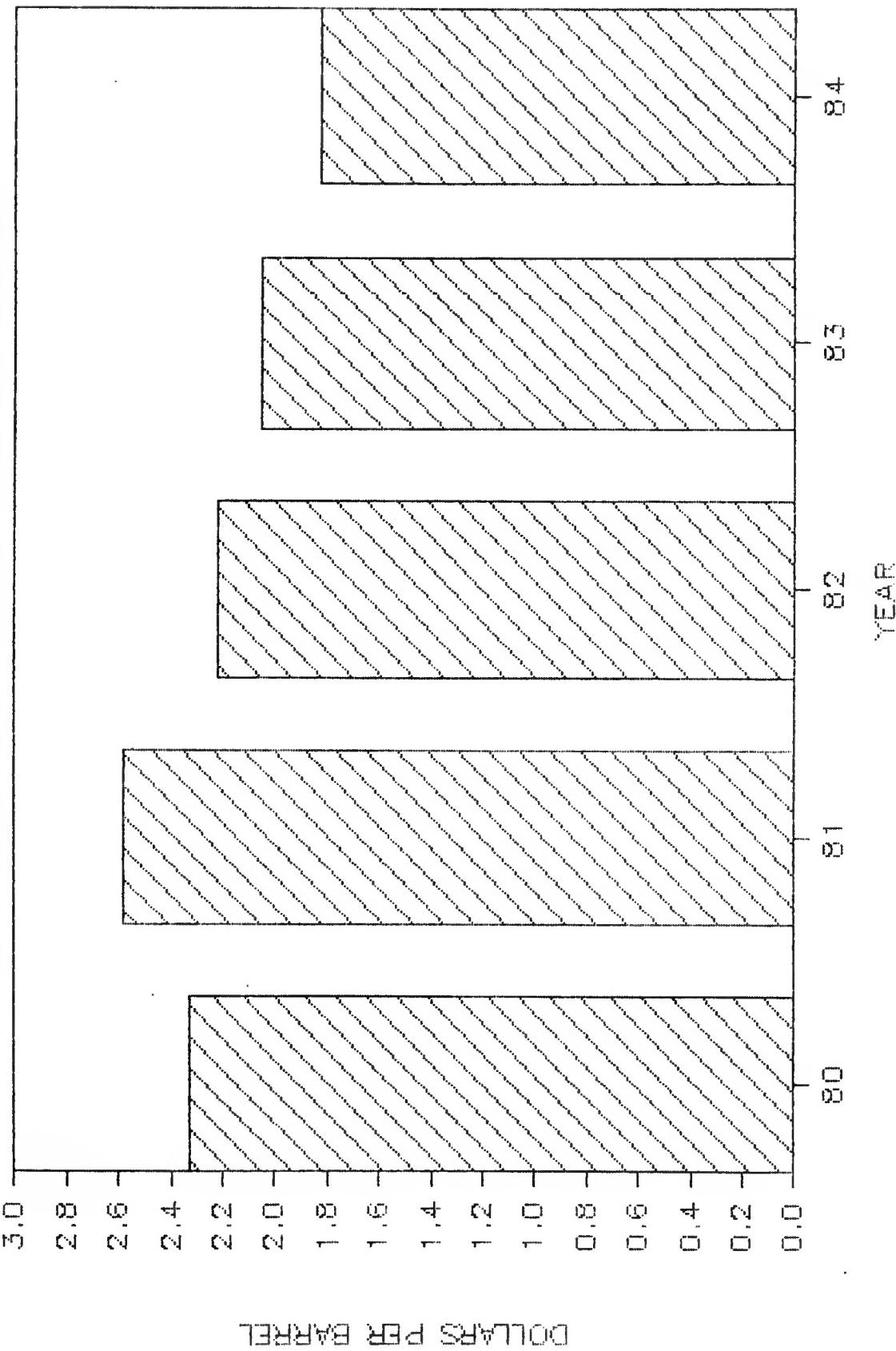


CHART THREE

NET AFTER-TAX PROCEEDS
TO INDEPENDENT STRIPPER WELL PRODUCERS

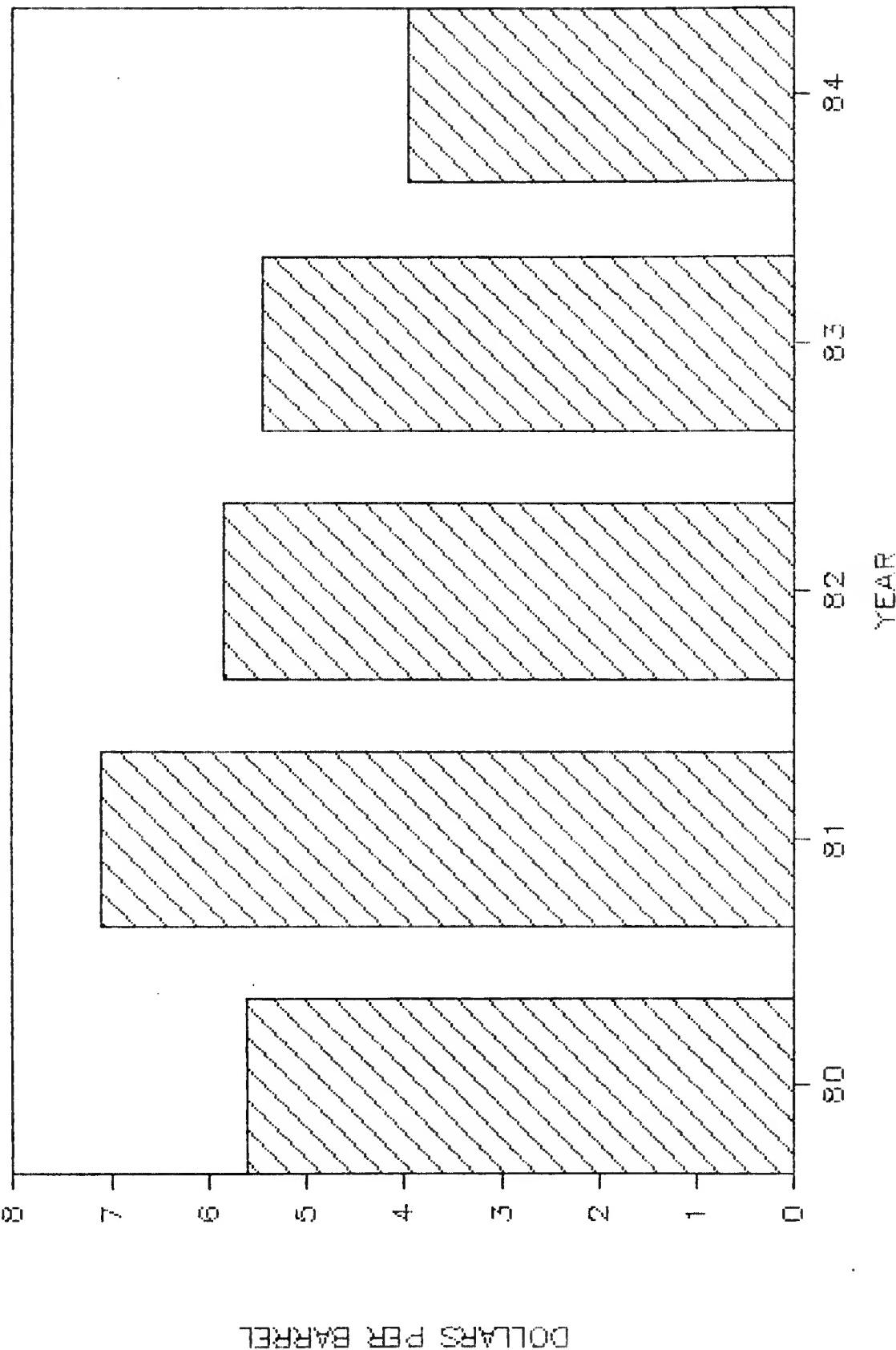


CHART FOUR

MONTANA

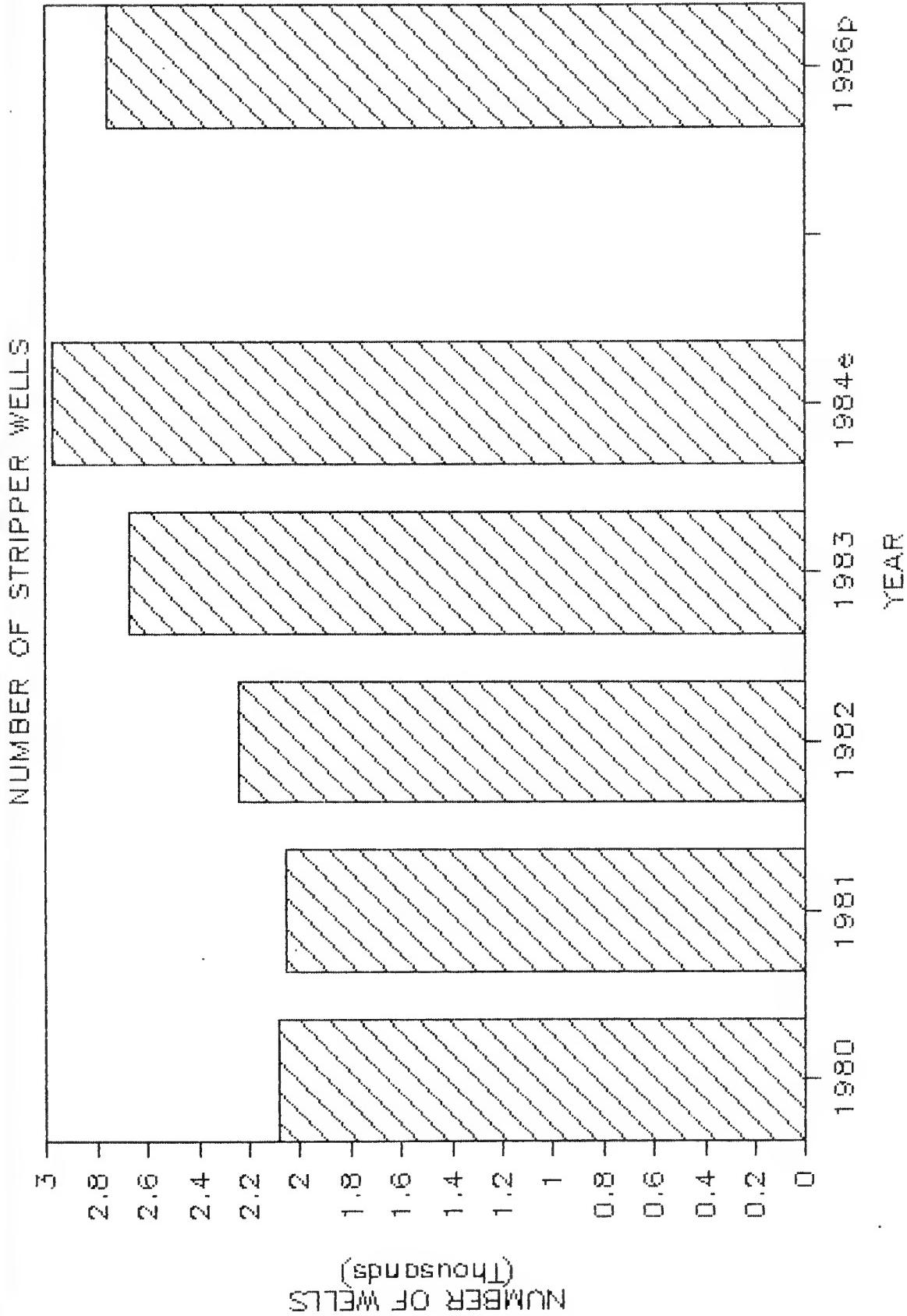


CHART FIVE

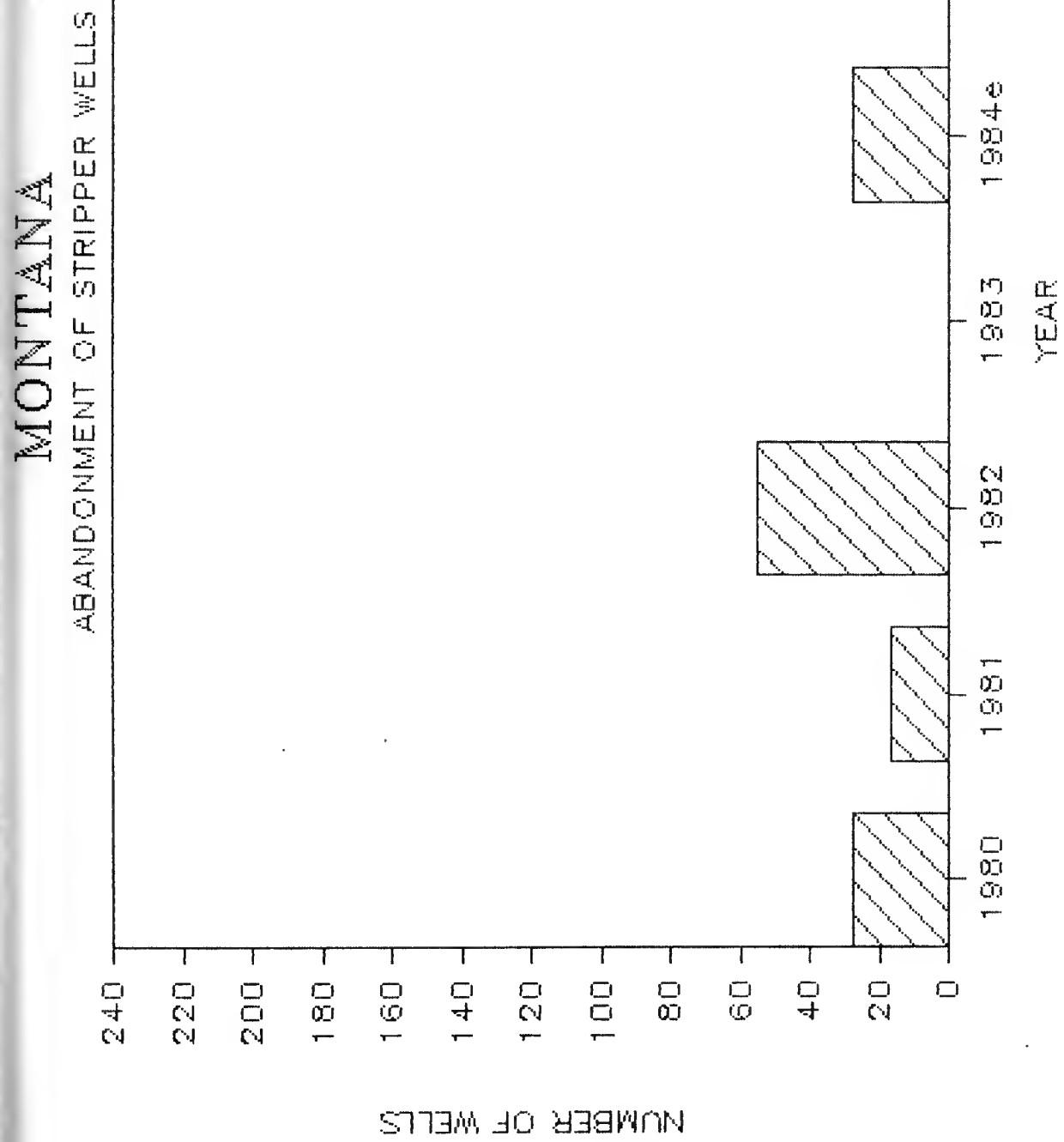


CHART SIX

MONTANA
STRIPPER WELL PRODUCTION

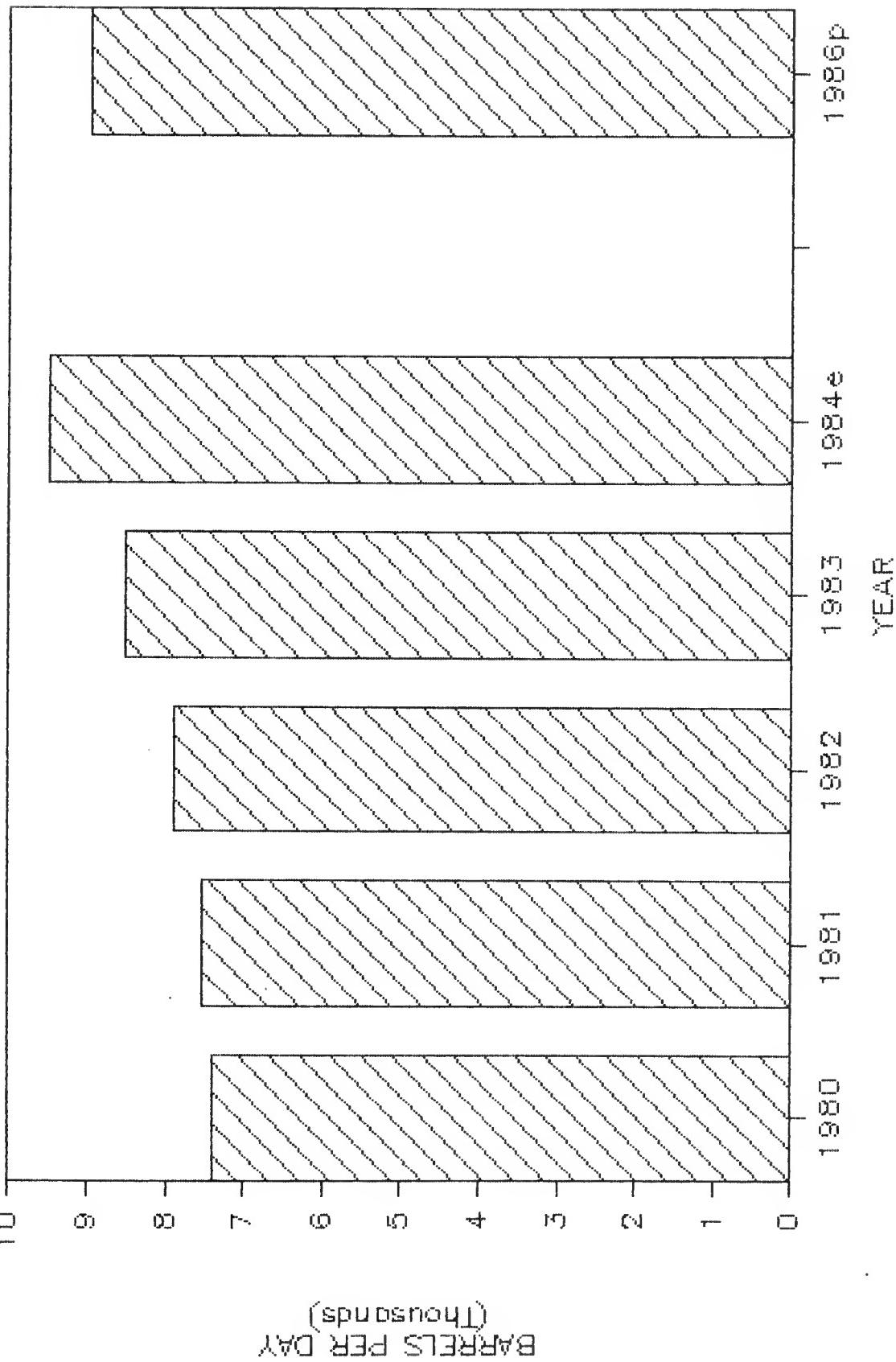
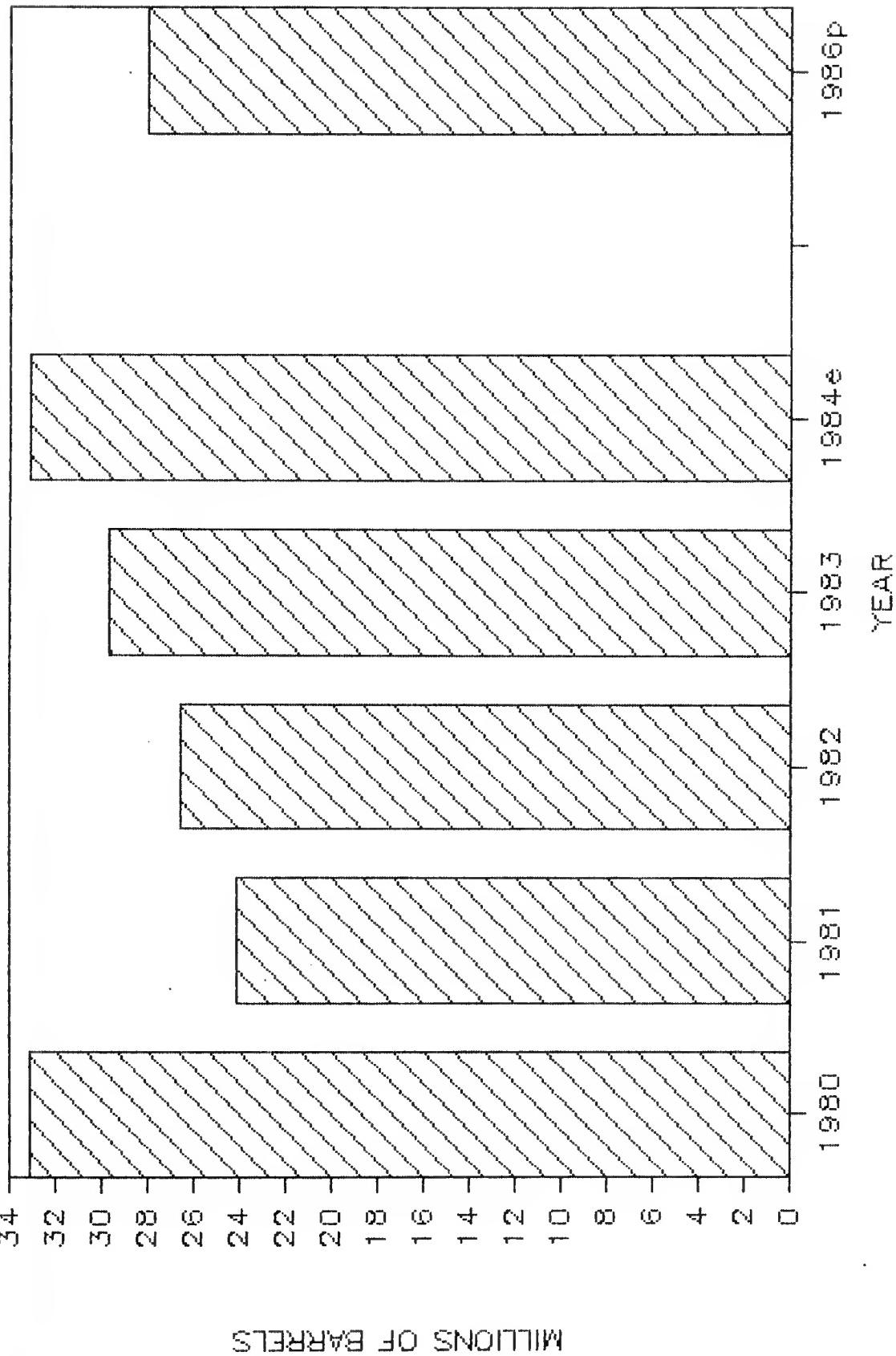
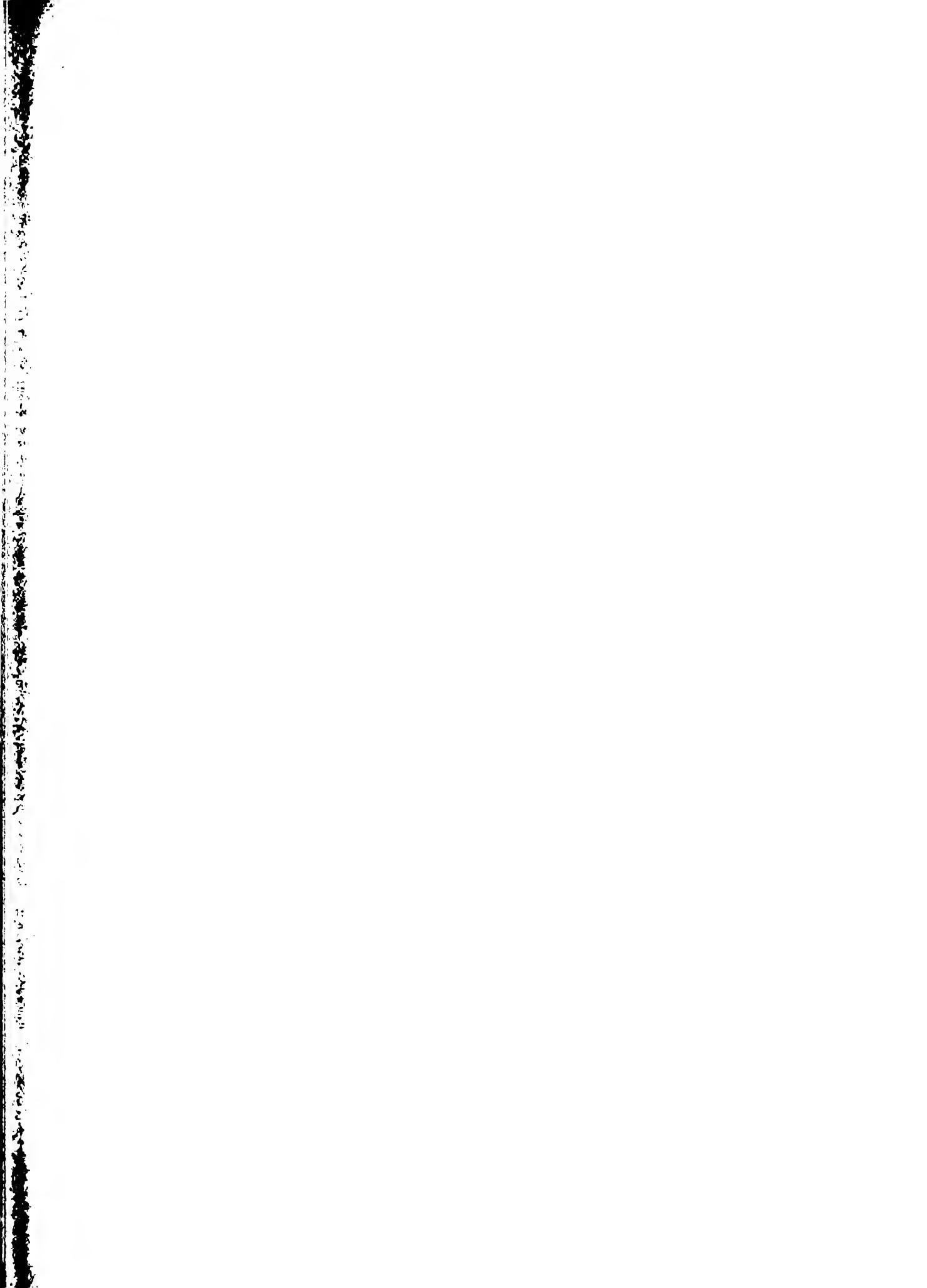


CHART SEVEN

MONTANA
STRIPPER WELL RESERVES







IMPACT OF FEDERAL TAX PROPOSALS ON ENHANCED OIL RECOVERY

Introduction

The purpose of this study is to forecast the impact of the Treasury Department's recent tax proposals on ongoing and projected enhanced oil recovery ("EOR") operations.

Enhanced oil recovery is the incremental oil that can be economically produced from a petroleum reservoir over that which can be economically recovered by conventional primary and secondary production methods. Primary methods rely on the natural reservoir energy to drive the oil through reservoir rock to producing wells. Over time, this natural energy drive dissipates, and energy must be added to the reservoir to produce significant amounts of additional oil.

Conventional secondary recovery methods introduce additional energy through the injection of water or gas, under pressure, into the formation at substantial additional costs. Enhanced oil recovery techniques are employed to achieve further production after primary and secondary recovery has been exhausted. Examples of enhanced oil recovery methods include: chemical flooding, miscible flooding, injection of carbon dioxide and thermal recovery.

Existing EOR projects currently account for 6% of U.S. daily oil production. The resource to which enhanced oil recovery may be applied in the future is very large, because conventional primary and secondary methods are expected to recover only about one-third of the oil originally discovered. Although much of the remaining two-thirds of the oil originally-in-place is not producible, a significant portion of this remaining resource constitutes the target for EOR.

Oil production by enhanced recovery is more costly than production by most conventional methods. Because of these high costs and heavy front-end investments required for most EOR projects, tax policies which reduce the after-tax cash flow available to producers will result in significant reductions in the number of projects undertaken and thus, the amount of oil recovered. Moreover, tax policies which hasten the abandonment of marginally economic fields remove the reserves remaining in the fields as potential resources for enhanced recovery.

The Treasury Department's recent tax proposals would effect several tax provisions that currently encourage EOR projects. These proposals would change depreciation schedules and repeal the following tax provisions: percentage depletion; the expensing on intangible drilling costs; the deduction of



qualified tertiary injectant expenses; and, the investment tax credit. Although the Treasury Department proposal would also lower the marginal tax rate and repeal the Windfall Profit Tax, these favorable changes would be more than offset by the increased taxes resulting from the other changes described above.

Major Findings

The study found that the Treasury Department's tax proposals would have a significant negative impact on EOR projects. The reduced after-tax cash flow available to producers under the Treasury tax proposal would effect enhanced oil recovery in Montana in the years ahead as follows:

- oil production from EOR projects would be reduced by 23 million barrels;
- royalty payments would drop by \$86,000,000;
- property and severance tax payments would fall by \$43,000,000;
- state income tax collections would be reduced by \$11,000,000;
- federal income tax collections from third parties would fall by \$54,000,000;
- reductions in payments to suppliers of good and services would equal \$406,000,000;
- equipment purchases would fall by \$10,000,000;
- intangible drilling costs for EOR wells would decrease by \$19,000,000

Basis for Projections

These projections are based on an EOR data base and economic model developed by the Bartlesville Energy Center, and on "Enhanced Oil Recovery," a report by the National Petroleum Council to the Secretary of Energy, dated June 21, 1984.

IMPACT OF FEDERAL TAX PROPOSALS ON ENHANCED OIL RECOVERY (EOR)

| | NATIONALLY | MONTANA |
|--|------------|-------------|
| DUCTION IN EOR PRODUCTION | 1,832 | 23 (MMBBLs) |
| DUCTION IN ROYALTY PAYMENTS | 10,351 | 86 (MM \$) |
| DUCTION IN PROPERTY AND SEVERENCE TAX PAYMENTS | 2,228 | 43 (MM \$) |
| DUCTION IN STATE INCOME TAX COLLECTIONS | 635 | 11 (MM \$) |
| DUCTION IN FEDERAL INCOME TAX COLLECTIONS | 1,313 | 54 (MM \$) |
| DUCTION IN PAYMENTS TO THIRD PARTIES | 34,174 | 406 (MM \$) |
| DUCTION IN EQUIPMENT PURCHASES | 2,250 | 10 (MM \$) |
| DUCTION IN IDC'S FOR EOR WELLS | 896 | 19 (MM \$) |

NOTE: All impacts are cumulative.

sis:

National Petroleum Council Enhanced Oil Recovery, June 21, 1984 Bartlesville Energy Center EOR Data Base And Economic Model State By State.

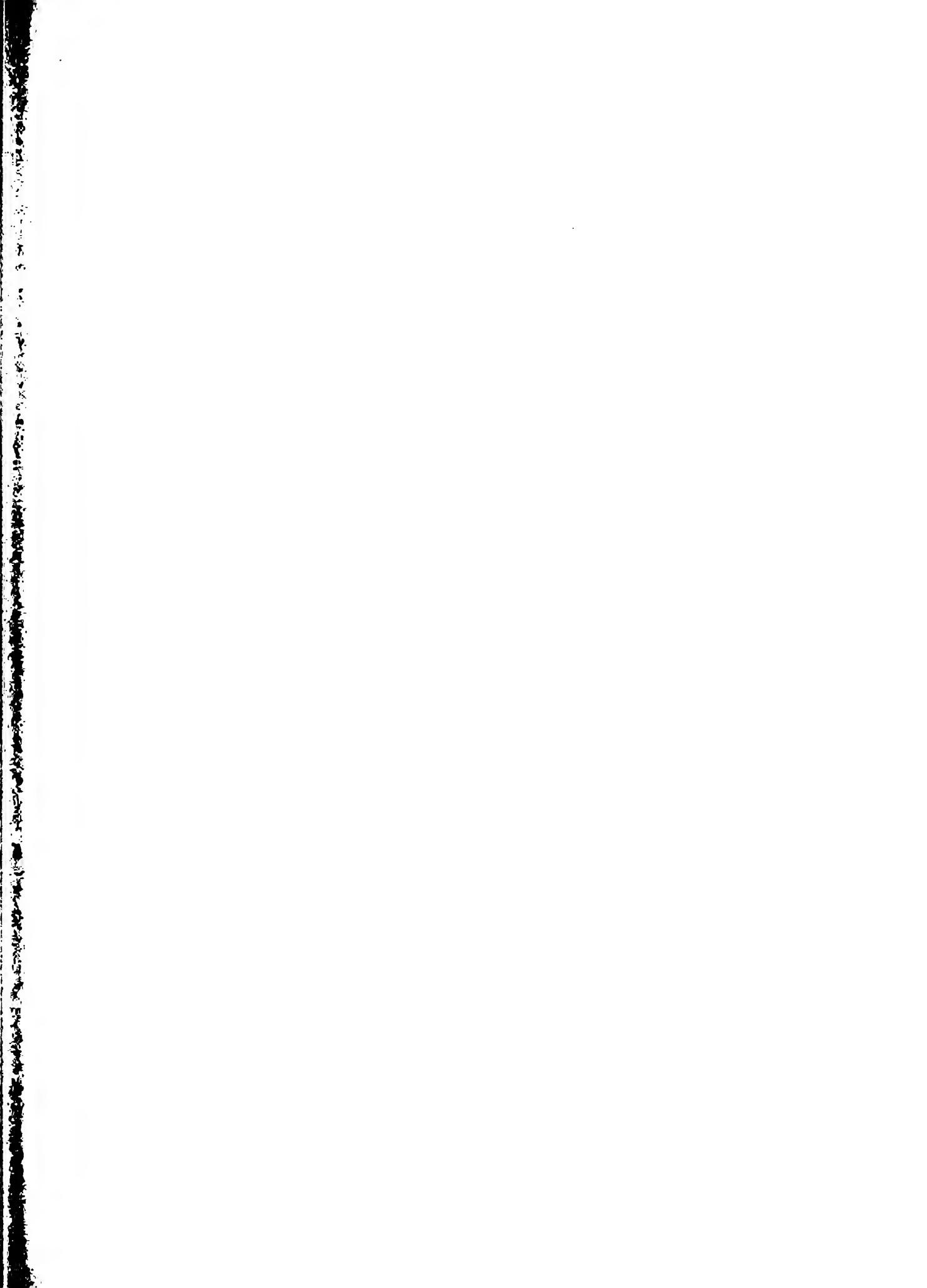
Actual state by state current property and severence tax rates.

Actual state by state income tax rates.

Provisions of Treasury Secretary Regan's November 27, 1984 tax proposal regarding:

- Intangible investments
- Tertiary injectants
- Revised ACRS depreciation
- No tax credit
- Modified depreciation schedules
- Crude oil price of \$30.00 per barrel
- 10% rate of return on investment







IDEFFECT

NATIONAL
ANALYSIS OF THE IMPACT OF THE PROPOSED TAX TREATMENT
OF INTANGIBLE DRILLING COSTS ON DRILLING EXPENDITURES,
WELLS DRILLED, EMPLOYMENT & RESERVES FOUND - 1986- 1991

1984 DRILLING RIGS 2248
1983 WELL COST \$371,721
GPT TAX RATE 6.00%

| CURRENT LAW | | | | TREASURY PROPOSAL | | | | REDUCTION IN | | | |
|-------------|---|---|-------------------------------------|---|--|------------------------------|---|---|---|---------------------|--|
| YEAR | CASH AVAILABLE FOR DRILLING EXPENDITURES (\$MM) | J.A.S. AVAILABLE FOR DRILLING EXPENDITURES (\$MM) | J.A.S. DRILLING EXPENDITURES (\$MM) | TOTAL CASH AVAILABLE FOR DRILLING EXPENDITURES (\$MM) | AVAILABLE FOR DRILLING EXPENDITURES (\$MM) | DRILLING EXPENDITURES (\$MM) | REDUCTION IN DRILLING EXPENDITURES (\$MM) | CASH AVAILABLE FOR DRILLING EXPENDITURES (\$MM) | REDUCTION IN DRILLING EXPENDITURES (\$MM) | TOTAL WELLS DRILLED | REDUCTION IN DRILLING ACTIVITY (BOE/DAY) |
| 80 | \$22,800 | \$22,800 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 81 | \$36,665 | \$36,665 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 82 | \$39,428 | \$39,428 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 83 | \$25,105 | \$25,105 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 84 | \$25,105 | \$25,105 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 86 | \$25,105 | \$25,105 | \$15,163 | \$15,163 | \$9,941 | \$9,941 | \$47,066 | \$26,744 | \$890 | 828 | 79,440 |
| 87 | \$25,105 | \$25,105 | \$10,308 | \$10,308 | \$14,797 | \$14,797 | \$739,927 | 39,805 | 1,225 | 1,233 | 345,208 |
| 88 | \$25,105 | \$25,105 | \$12,508 | \$12,508 | \$12,596 | \$12,596 | \$629,820 | 33,887 | 1,128 | 1,050 | 722,190 |
| 89 | \$25,105 | \$25,105 | \$12,026 | \$12,026 | \$13,079 | \$13,079 | \$653,927 | 35,184 | 1,171 | 1,090 | 1,052,693 |
| 90 | \$25,105 | \$25,105 | \$12,393 | \$12,393 | \$12,712 | \$12,712 | \$635,592 | 34,197 | 1,138 | 1,059 | 1,307,298 |
| 91 | \$25,105 | \$25,105 | \$12,576 | \$12,576 | \$12,529 | \$12,529 | \$626,425 | 33,704 | 1,122 | 1,044 | 1,322,928 |
| TOTAL | \$150,627 | \$150,627 | \$74,974 | \$74,974 | \$75,653 | \$75,653 | n.a. | 203,521 | n.a. | 6,304 | n.a. |
| AVERAGE | \$25,105 | \$25,105 | \$12,496 | \$12,496 | \$12,609 | \$12,609 | \$30,443 | 33,920 | 1,129 | 1,051 | 838,293 |

AVERAGE IMPACT 1986-91:

- REDUCTION IN DRILLING EXPENDITURES YEARLY
- REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING:
- REDUCTION IN NUMBER OF WELLS DRILLED YEARLY
- REDUCTION IN DRILLING RIG RUNNING YEARLY
- REDUCTION IN RESERVES ADDED AT \$12.00 PER BOE:
- REDUCTION IN DAILY OIL AND GAS PRODUCTION:
- REDUCTION IN OIL AND GAS SALES:
- REDUCTION IN STATE GPT COLLECTIONS:

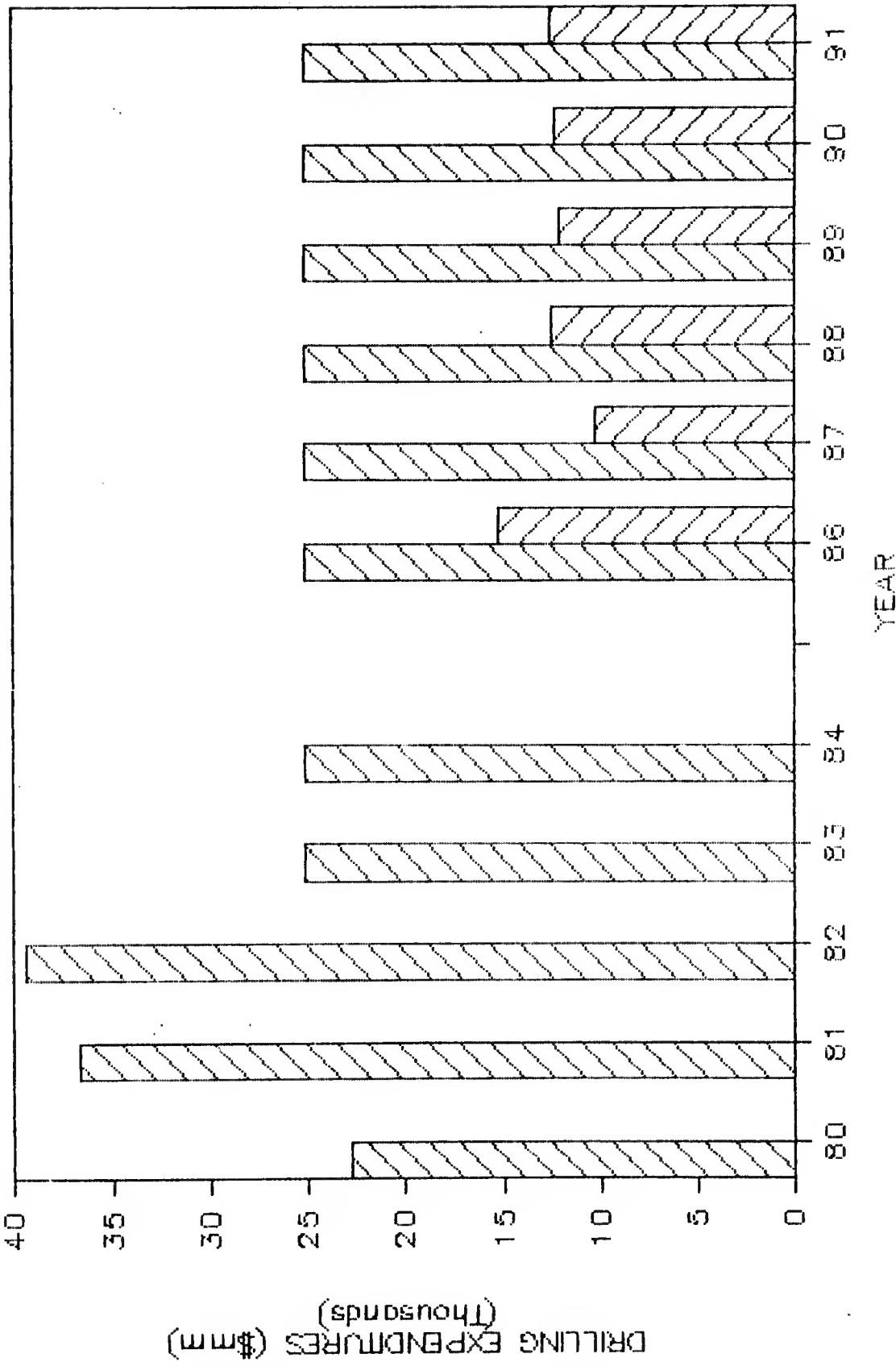
\$12,609 MILLION
630,443 JOBS
33,920 WELLS
1,129 RIGS
6,304 MMBOE
838,293 BOE/DAY
\$6,006 MILLION
\$360 MILLION

ASSUMPTIONS:

- INDUSTRY EXPENDITURES ARE REDUCED BY ONE-THIRD IN 1986 DUE TO UNCERTAINTY AND REDUCED THIRD PARTY FUNDING
- THIRD PARTY FUNDING IS REDUCED BY ONE-HALF IN 1986 DUE TO UNCERTAINTY IN TAX TREATMENT
- AFTER 1986 INDUSTRY EXPENDITURES REMAIN AT TWO-THIRDS OF 1984 LEVELS + OR - REDUCED CASH FLOW FROM ACCELERATED TAX PAYMENTS.
- AFTER 1986 THIRD PARTY FUNDING REMAIN AT ONE-HALF OF 1984 LEVELS + DR - REDUCED CASH FLOW FROM ACCELERATED TAX PAYMENTS.
- 1986 AVERAGE WELLHEAD PRICE WAS \$19.63/BOE.
- A REDUCTION IN DRILLING EXPENDITURES OF ONE MILLION DOLLARS RESULTS IN A LOSS OF 50 JOBS.

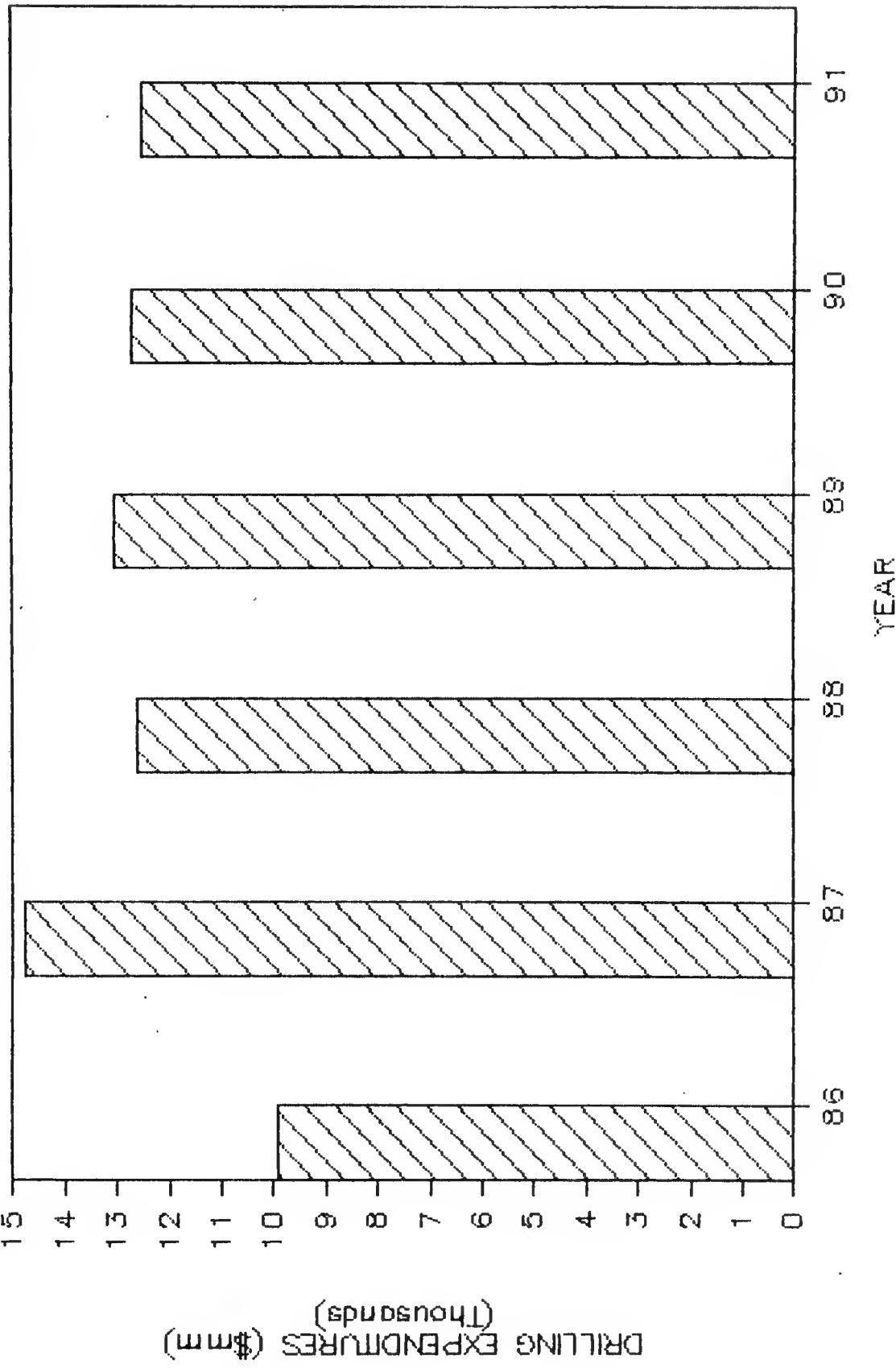
U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN DRILLING EXPENDITURES YEARLY

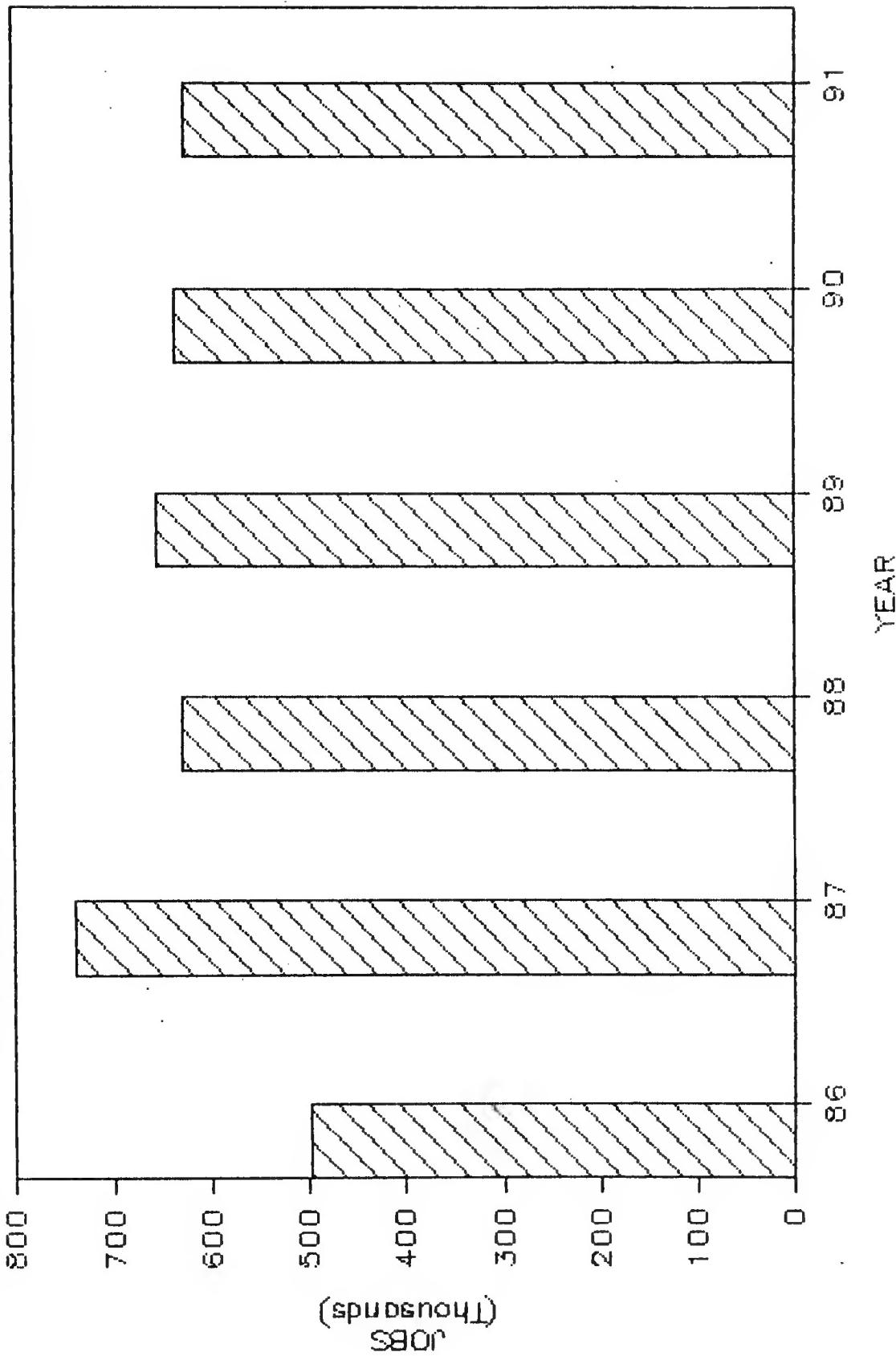


U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN DRILLING EXPENDITURES YEARLY

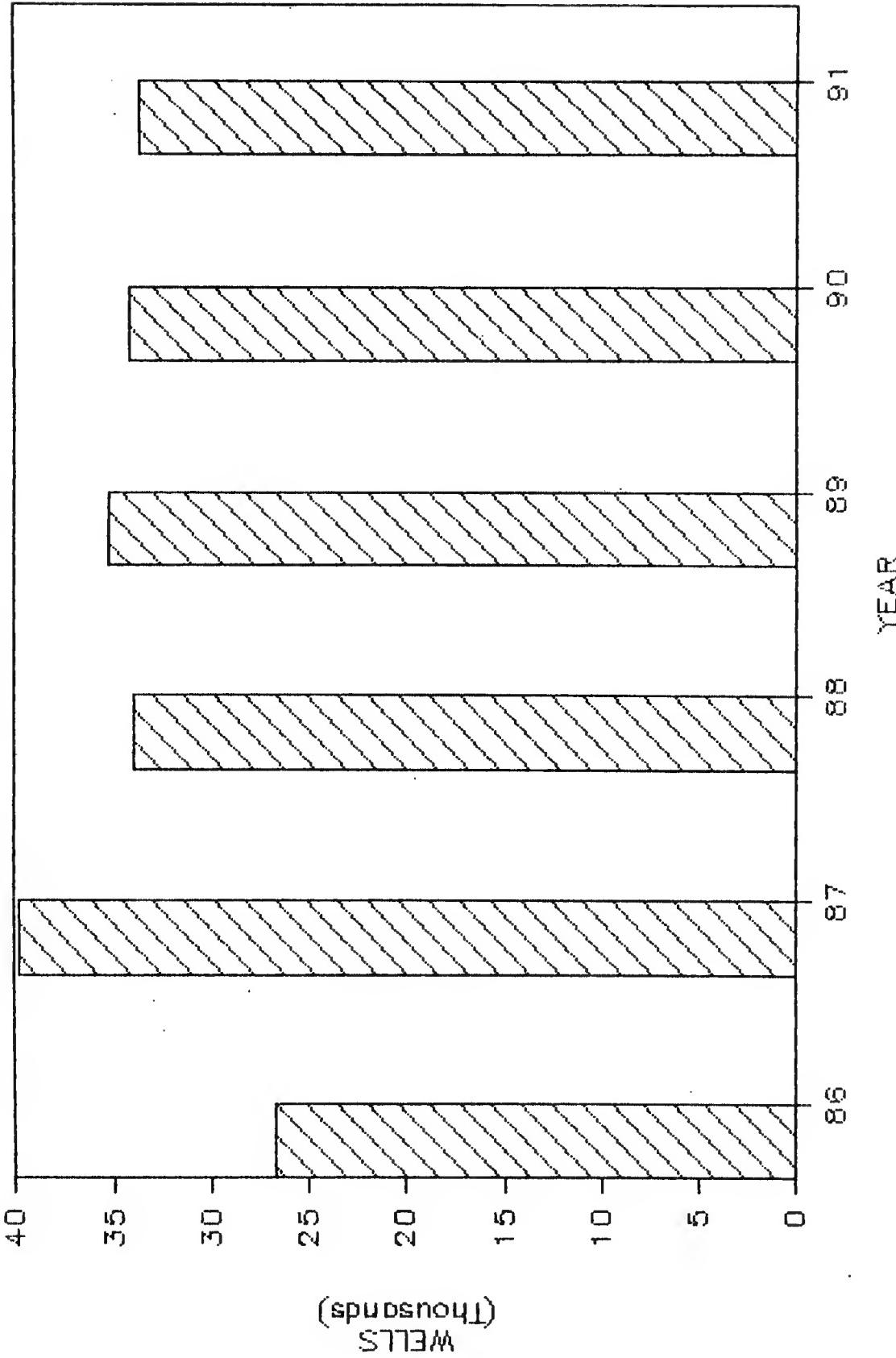


U.S. IMPACT OF IDC TAX PROPOSAL REDUCTION IN EMPLOYMENT DUE TO REDUCED DRILLING:



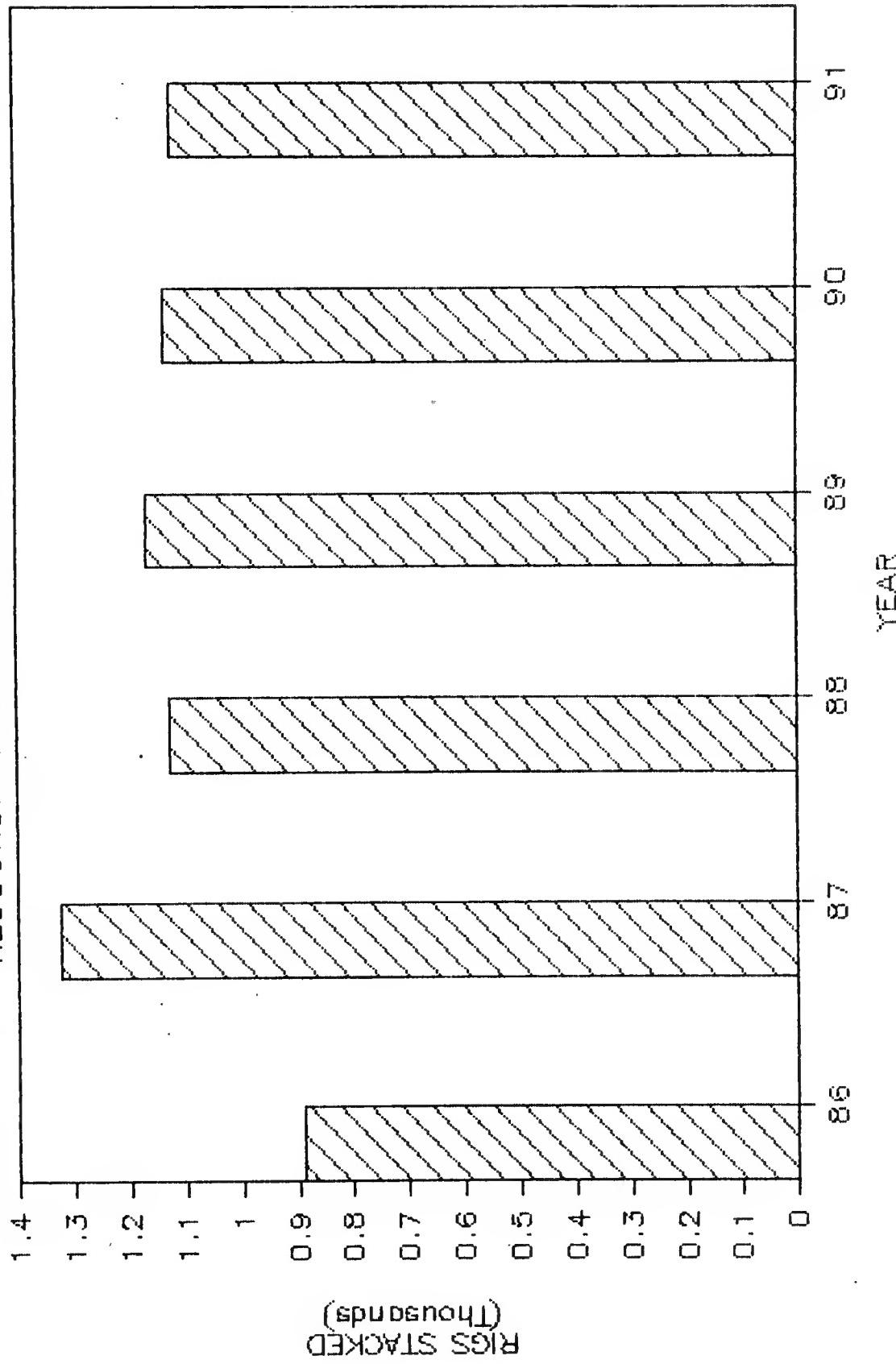
U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN NUMBER OF WELLS DRILLED YEARLY



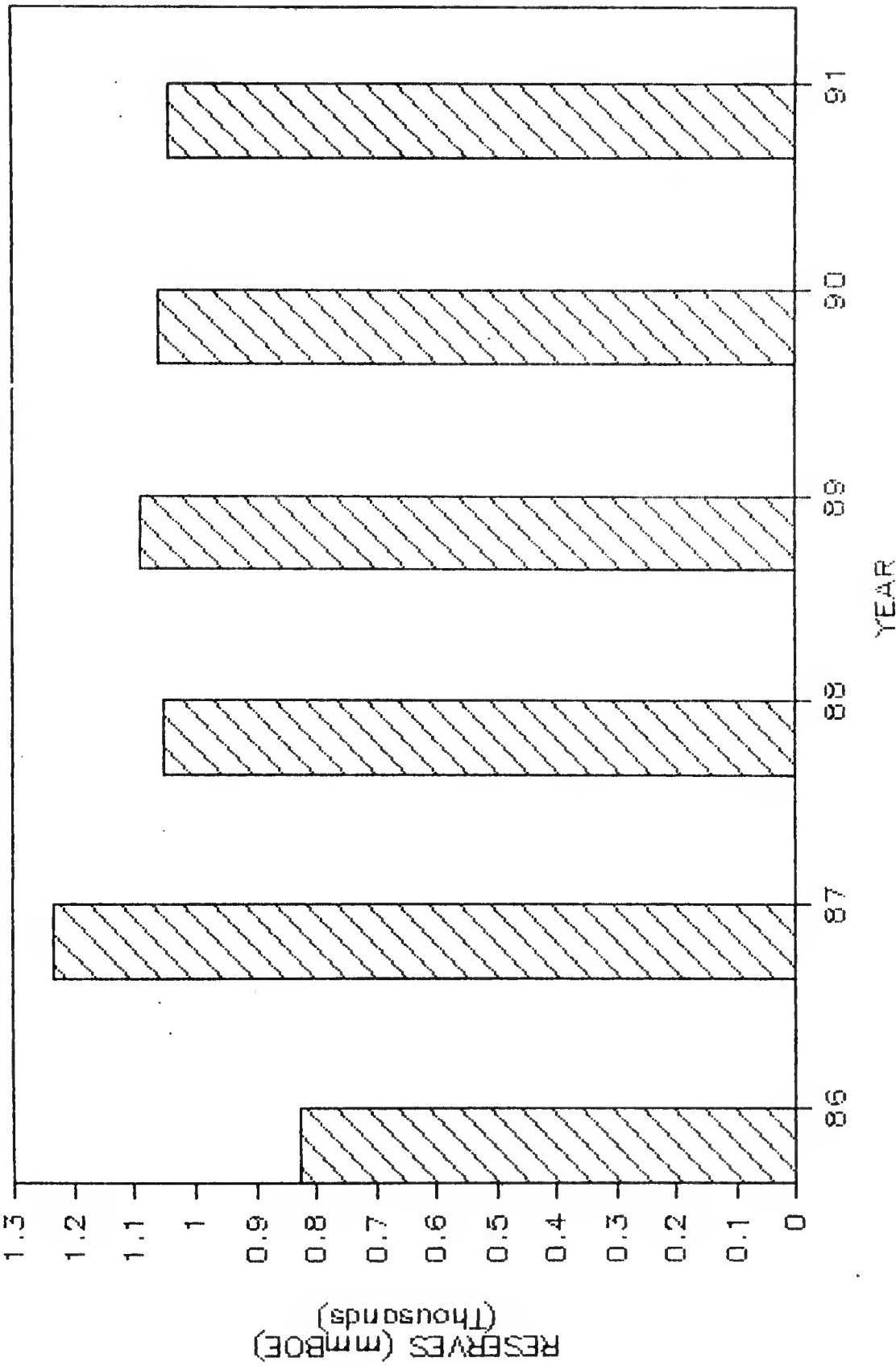
U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN DRILLING RIG RUNNING YEARLY



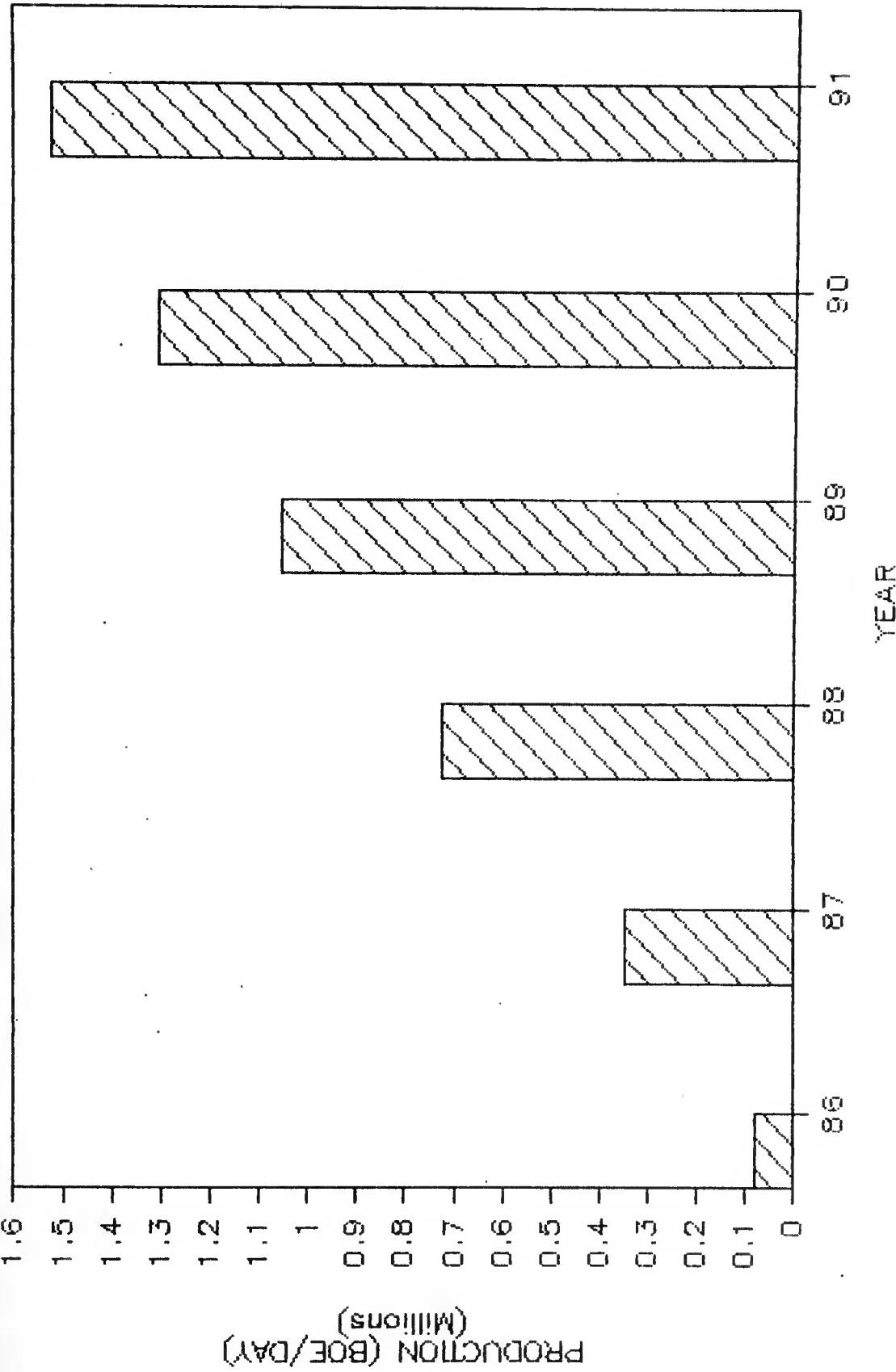
U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN RESERVES ADDED AT \$12.00 PER BOE:



U.S. IMPACT OF IDC TAX PROPOSAL

REDUCTION IN DAILY OIL AND GAS PRODUCTION:

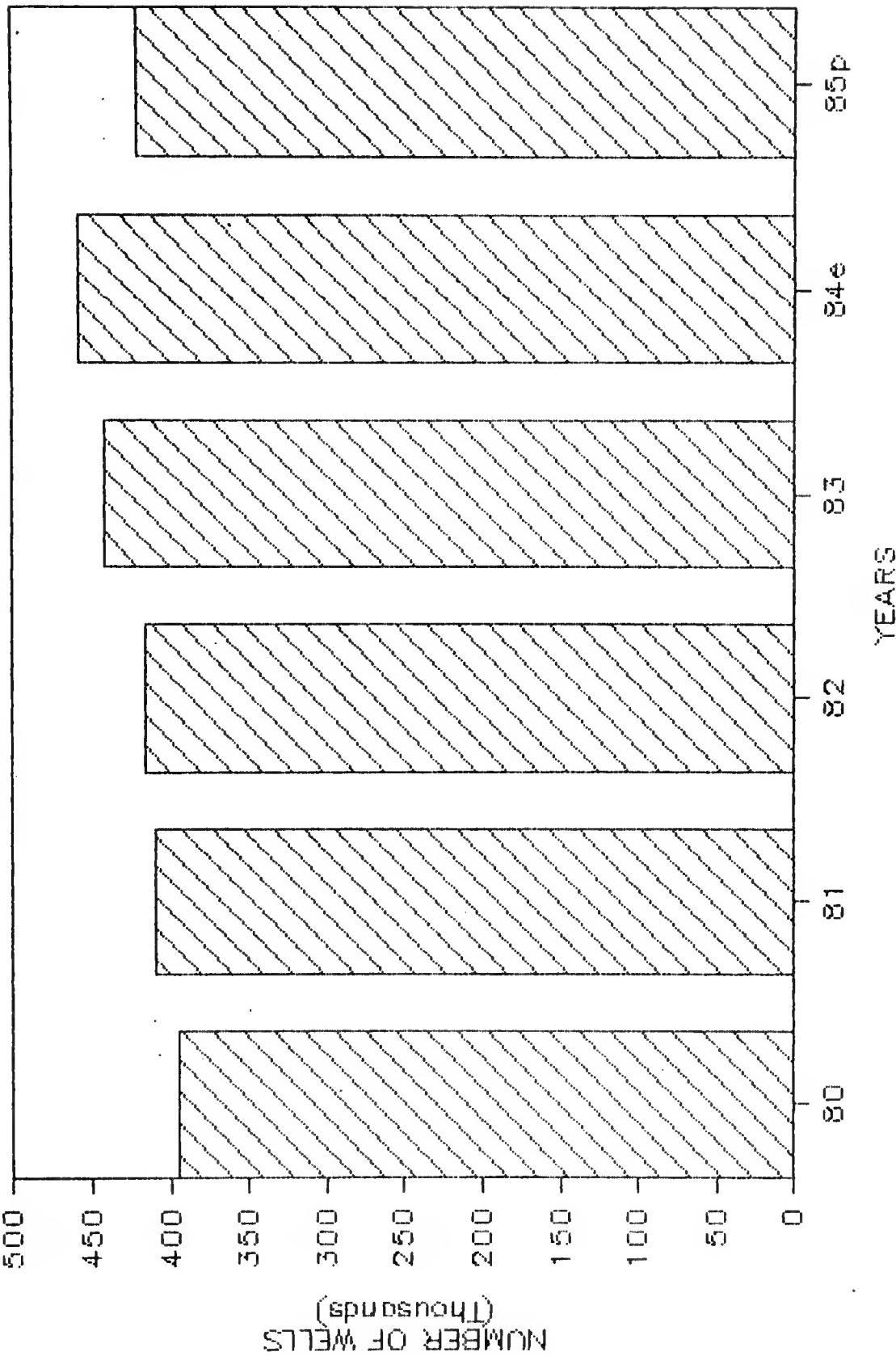


NATIONAL
STRIPPER WELL STATISTICS
1970 - 1983

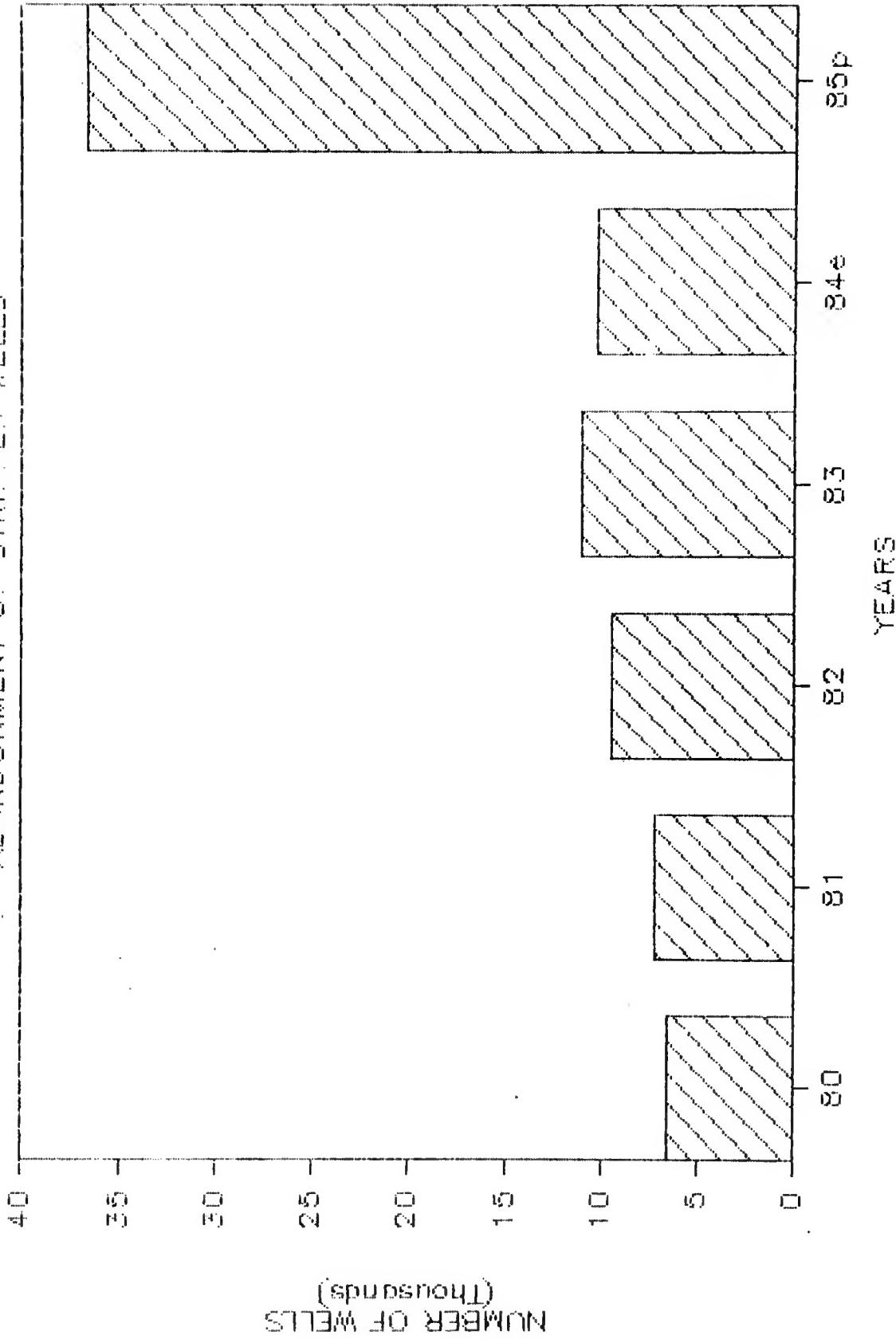
| YEAR | NUMBER | ABANDONMENTS | ADDITIONS | ACRES | AVERAGE | | | | TOTAL | | | | STRIPPER WELL RESERVES | | | |
|-------|---------|--------------|-----------|------------|-------------------|------------------|-----------------------------|------------------|---------------|------------------|------------------|---------|-----------------------------|-------------------------------|----------------|--|
| | | | | | DAILY PRODUCTION | | TOTAL STRIPPER WELL | | STRIPPER WELL | | TOTAL | | STRIPPER WELL | | TOTAL | |
| | | | | | PER STRIPPER WELL | DAILY PRODUCTION | NATIONAL* ANNUAL PRODUCTION | DAILY PRODUCTION | TOTAL | NATIONAL AVERAGE | DAILY PRODUCTION | TOTAL | PRIMARY PRODUCTION (MBBLLS) | SECONDARY PRODUCTION (MBBLLS) | TOTAL (MBBLLS) | |
| | | | | | (BPD) | (MBBLLS) | (MBBLLS) | (BPD) | (BPD) | (BPD) | (BPD) | (BPD) | (MBBLLS) | (MBBLLS) | (MBBLLS) | |
| 1970 | 359,130 | 15,631 | 16,111 | 8,760,454 | 3.37 | 461.29 | 3,375.90 | 1,269,006 | 9,249,033 | 13,071 | 2761.22 | 2197.99 | 4959.21 | | | |
| 1971 | 353,586 | 18,421 | 12,987 | 8,761,081 | 3.58 | 423.32 | 3,223.46 | 1,159,786 | 8,831,230 | 13,132 | 2659.90 | 2161.46 | 4821.35 | | | |
| 1972 | 359,471 | 13,483 | 19,258 | 8,629,986 | 3.13 | 411.92 | 3,345.21 | 1,125,478 | 9,139,915 | 12,312 | 2855.86 | 2026.04 | 4881.90 | | | |
| 1973 | 355,229 | 13,756 | 9,514 | 8,741,387 | 2.97 | 395.68 | 3,206.44 | 1,056,667 | 8,784,753 | 12,032 | 2981.80 | 1877.18 | 4858.97 | | | |
| 1974 | 366,075 | 13,779 | 24,645 | 8,964,465 | 3.06 | 411.94 | 3,048.06 | 1,128,592 | 8,350,836 | 13,512 | 3020.19 | 1866.26 | 4886.44 | | | |
| 1975 | 367,872 | 13,478 | 15,255 | 9,218,949 | 2.93 | 384.16 | 2,804.68 | 1,079,898 | 7,684,063 | 14,052 | 3004.29 | 1841.43 | 4845.72 | | | |
| 1976 | 365,733 | 9,916 | 7,777 | 9,299,620 | 2.93 | 392.19 | 2,730.86 | 1,071,559 | 7,661,366 | 14,362 | 2888.00 | 2008.32 | 4876.32 | | | |
| 1977 | 368,930 | 9,000 | 12,197 | 9,423,161 | 2.91 | 392.53 | 2,672.82 | 1,075,430 | 7,322,795 | 14,692 | 2901.35 | 2012.67 | 4914.05 | | | |
| 1978 | 374,635 | 6,380 | 14,085 | 8,931,712 | 2.86 | 391.63 | 2,552.07 | 1,072,968 | 6,991,984 | 15,352 | 2892.65 | 2107.25 | 4999.90 | | | |
| 1979 | 386,310 | 7,668 | 19,343 | 9,154,803 | 2.79 | 394.41 | 2,420.48 | 1,080,562 | 6,631,444 | 16,292 | 3003.95 | 2165.19 | 5169.14 | | | |
| 1980 | 395,176 | 6,614 | 15,480 | 9,664,125 | 2.77 | 401.10 | 2,461.10 | 1,095,889 | 6,724,309 | 16,391 | 3052.30 | 2130.24 | 5184.01 | | | |
| 1981 | 407,539 | 7,215 | 21,578 | 9,683,584 | 2.85 | 426.50 | 2,137.97 | 1,168,500 | 5,857,458 | 19,952 | 2678.59 | 1798.37 | 4426.96 | | | |
| 1982 | 416,493 | 9,426 | 16,380 | 9,720,451 | 2.90 | 441.95 | 2,072.51 | 1,210,825 | 5,678,107 | 21,322 | 2594.03 | 1860.37 | 4454.40 | | | |
| 1983 | 441,501 | 11,032 | 36,040 | 10,411,234 | 2.87 | 462.01 | 2,125.02 | 1,265,790 | 5,821,973 | 21,741 | 2579.65 | 2011.16 | 4550.81 | | | |
| 1984* | 457,482 | 10,229 | 26,210 | 10,788,089 | 2.87 | 480.55 | 2,125.02 | 1,316,571 | 5,821,973 | 22,612 | 2683.13 | 2091.85 | 4774.98 | | | |
| 1985† | 420,885 | 36,597 | 0 | 9,925,079 | 2.93 | 450.87 | 2,095.34 | 1,235,261 | 5,740,663 | 21,522 | 2205.82 | 1719.72 | 3925.33 | | | |

* TOTAL PRODUCTION FROM THE STATES INCLUDED IN THE NATIONAL STRIPPER WELL SURVEY, 1971-1984

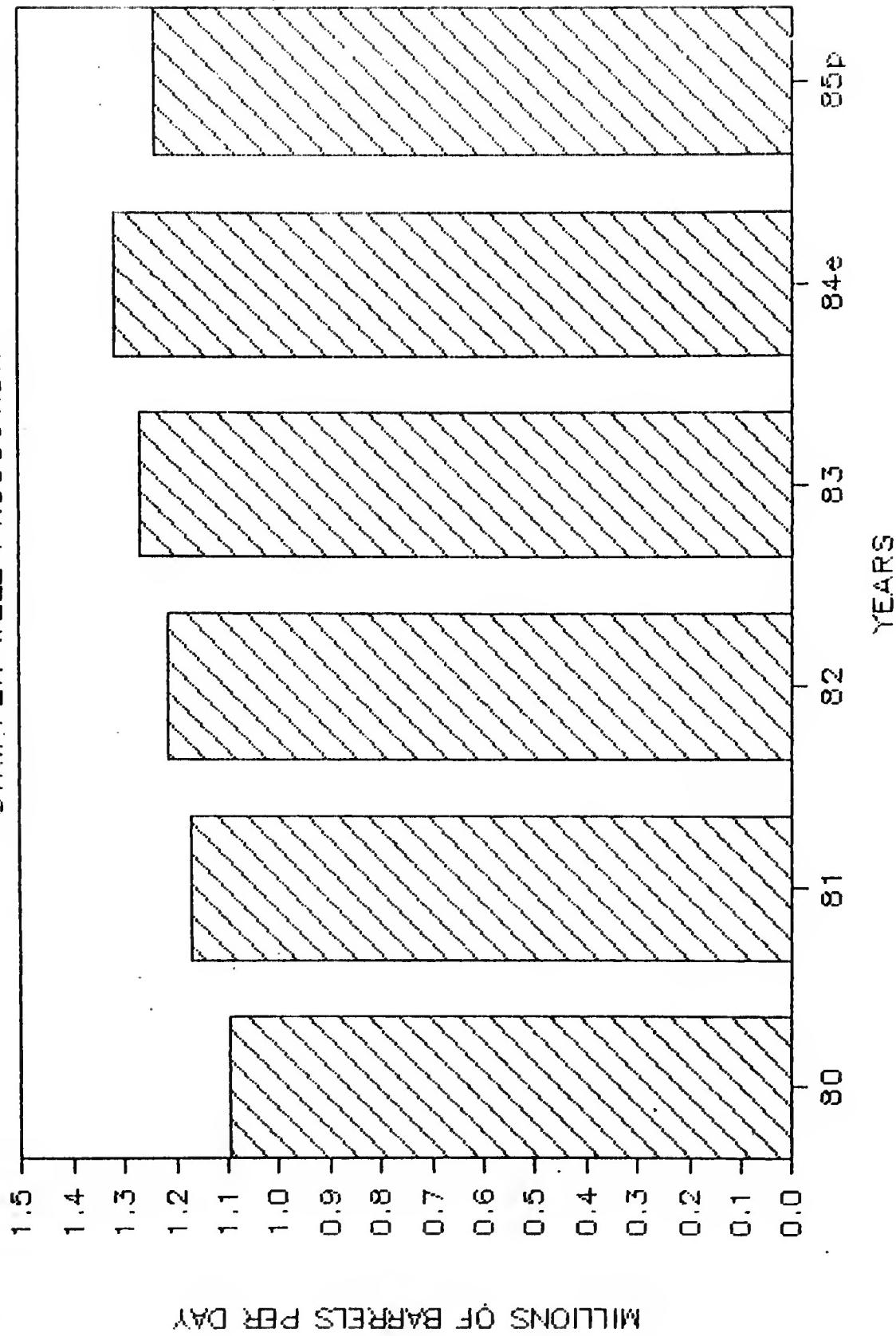
NATIONAL NUMBER OF STRIPPER WELLS



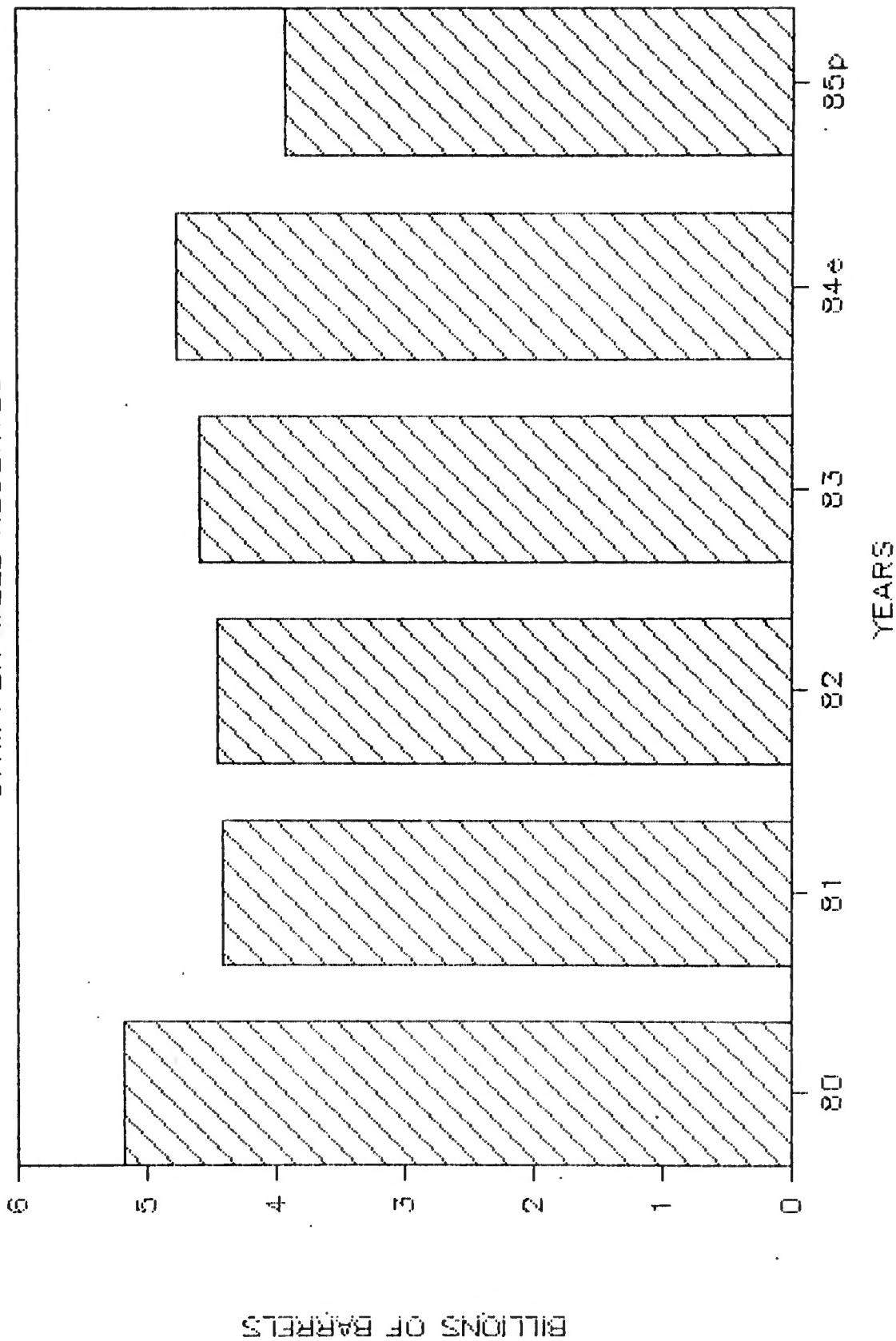
NATIONAL ABANDONMENT OF STRIPPER WELLS

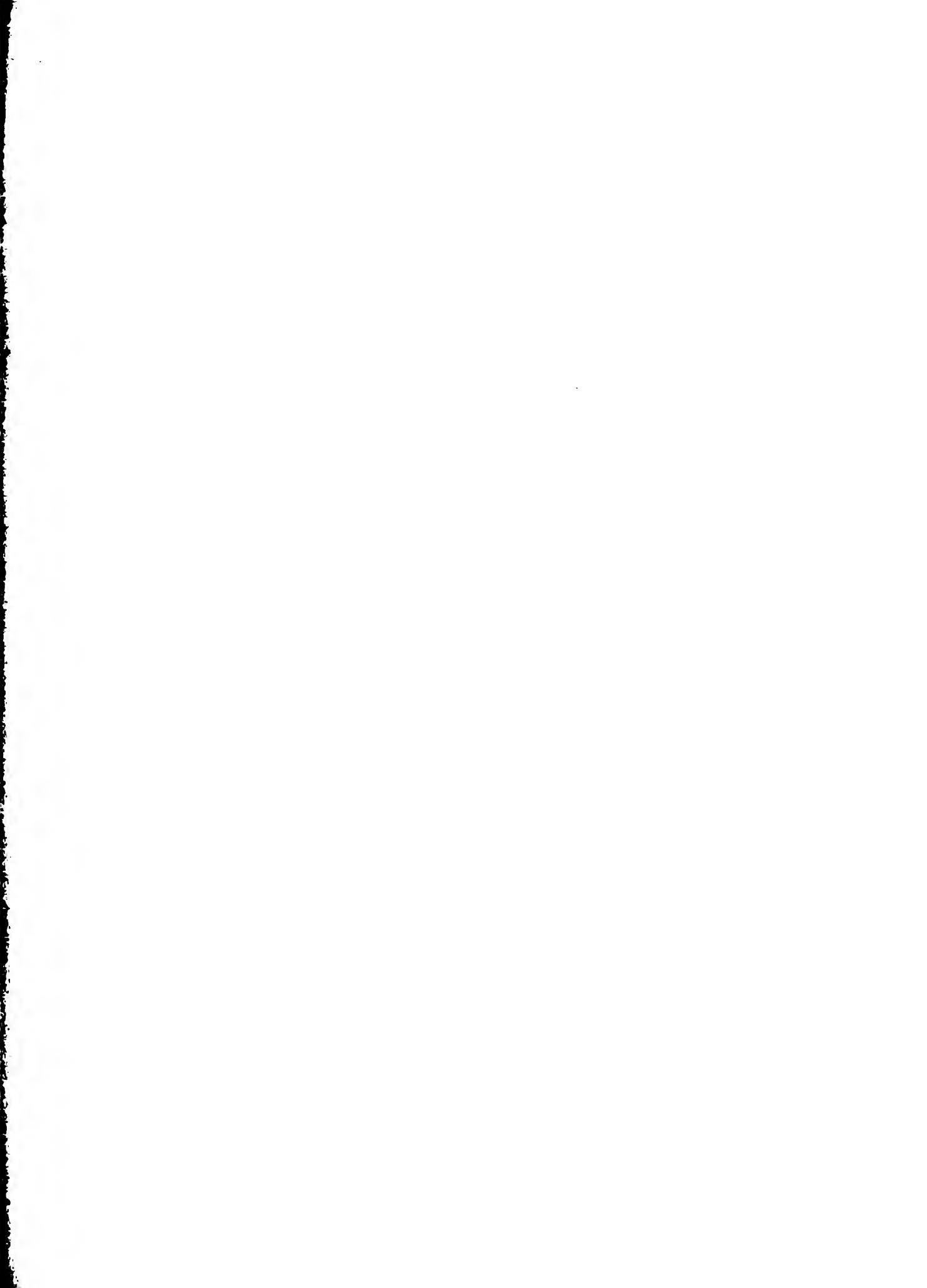


NATIONAL
STRIPPER WELL PRODUCTION



NATIONAL
STRIPPER WELL RESERVES





IMPACT OF FEDERAL TAX PROPOSALS ON ENHANCED OIL RECOVERY (EOR)

| REDUCTIONS | U.S.* | ALASKA* | ARKANSAS* | CALIFORNIA* | COLORADO* | FLORIDA* | KANSAS* |
|--------------------------------------|---------------|--------------|------------|--------------|--------------|------------|------------|
| (Millions of Dollars) | | | | | | | |
| IN ROYALTY PAYMENTS | 10,351 | 184 | 77 | 1,221 | 200 | 42 | 65 |
| IN PROPERTY & SEVERANCE TAX PAYMENTS | 2,228 | 8 | 32 | 245 | 76 | 17 | 42 |
| IN STATE INCOME TAX COLLECTIONS | 635 | 66 | 17 | 77 | 9 | 6 | (1) |
| IN FEDERAL INCOME TAX COLLECTIONS | 1,313 | (220) | 74 | (1,473) | 4 | (25) | (72) |
| IN PAYMENTS TO THIRD PARTIES | 34,174 | 1,404 | 428 | 7,978 | 947 | 194 | 332 |
| IN EQUIPMENT PURCHASES | 2,250 | 14 | 6 | (887) | 26 | 3 | 9 |
| IN IDC'S FOR EOR WELLS | <u>896</u> | <u>8</u> | <u>5</u> | <u>44</u> | <u>75</u> | <u>32</u> | <u>212</u> |
| TOTAL | <u>51,847</u> | <u>1,464</u> | <u>639</u> | <u>7,205</u> | <u>1,337</u> | <u>269</u> | <u>587</u> |
| IN EOR PRODUCTION [#] | 1,832 | 94 | 21 | 423 | 54 | 6 | 17 |

* All impacts are cumulative.

Millions of barrels.

Basis:

- National Petroleum Council Enhanced Oil Recovery, June, 1984 and Bartlesville Project Office (DOE) EOR Data Base and Economic Model.
- Actual state by state current property and severance tax rates.
- Actual state by state income tax rates.
- Provisions of Secretary Regan's November, 1984 tax proposal regarding:
 - Intangible investments
 - Tertiary injectants
 - Revised ACRS depreciation
 - No tax credit
 - Modified depreciation schedules
 - Crude oil price of \$30.00 per barrel
 - 10% rate of return on investment

IMPACT OF FEDERAL TAX PROPOSALS ON ENHANCED OIL RECOVERY EOR

| REDUCTIONS | U.S.* | KENTUCKY* | LOUISIANA* | MISSISSIPPI* | MONTANA* | NEBRASKA* | NEW MEXICO* |
|--------------------------------------|-----------------------|-----------|-------------|--------------|------------|------------|--------------|
| | (Millions of Dollars) | | | | | | |
| IN ROYALTY PAYMENTS | 10,351 | 0 | (48) | 60 | 86 | 29 | 806 |
| IN PROPERTY & SEVERANCE TAX PAYMENTS | 2,228 | 0 | 75 | 29 | 43 | 8 | 530 |
| IN STATE INCOME TAX COLLECTIONS | 635 | 4 | (58) | 6 | 11 | 3 | 92 |
| IN FEDERAL INCOME TAX COLLECTIONS | 1,313 | 13 | (136) | 28 | 54 | 12 | 353 |
| IN PAYMENTS TO THIRD PARTIES | 34,174 | 75 | 311 | 250 | 406 | 161 | 3,471 |
| IN EQUIPMENT PURCHASES | 2,250 | 0 | (3) | 8 | 10 | 5 | 95 |
| IN IDC'S FOR EOR WELLS | 896 | 0 | (45) | 29 | 19 | 2 | 271 |
| <u>TOTAL</u> | <u>51,847</u> | <u>92</u> | <u>96</u> | <u>410</u> | <u>629</u> | <u>220</u> | <u>5,618</u> |
| <u>IN EOR PRODUCTION†</u> | <u>1,832</u> | <u>0</u> | <u>(14)</u> | <u>16</u> | <u>23</u> | <u>8</u> | <u>288</u> |

* All impacts are cumulative.
† Millions of barrels.

Basis:

- National Petroleum Council Enhanced Oil Recovery, June, 1984 and Bartlesville Project Office (DOD) EOR Data Base and Economic Model.
- Actual state by state current property and severance tax rates.
- Actual state by state income tax rates.
- Provisions of Secretary Regan's November, 1984 tax proposal regarding:

- Intangible investments
- Territorial injectants
- Revised ACRS depreciation
- No tax credit
- Modified depreciation schedules
- Crude oil price of \$30.00 per barrel
- 10% rate of return on investment

IMPACT OF FEDERAL TAX PROPOSALS ON ENHANCED OIL RECOVERY EOR

| REDUCTIONS | U.S.* | NORTH DAKOTA* | OKLAHOMA* | TEXAS* | UTAH* | WYOMING* | OTHER* |
|--------------------------------------|----------------------|---------------------|-----------------------|----------------------|---------------------|-------------------|----------------------|
| | | | (Millions of Dollars) | | | | |
| IN ROYALTY PAYMENTS | 10,351 | 193 | 768 | 1,558 | (4) | 41 | 5,073 |
| IN PROPERTY & SEVERANCE TAX PAYMENTS | 2,228 | 177 | 435 | 567 | 0 | 21 | (77) |
| IN STATE INCOME TAX COLLECTIONS | 635 | 34 | 70 | 0 | (9) | 0 | 308 |
| IN FEDERAL INCOME TAX COLLECTIONS | 1,313 | 82 | 469 | (693) | (109) | (38) | 2,990 |
| IN PAYMENTS TO THIRD PARTIES | 34,174 | 913 | 3,629 | 9,656 | (26) | 227 | 3,818 |
| IN EQUIPMENT PURCHASES | 2,250 | 23 | 60 | 432 | 0 | 6 | 2,443 |
| IN IDC'S FOR EOR WELLS | <u>896</u> | <u>41</u> | <u>69</u> | <u>408</u> | <u>0</u> | <u>(19)</u> | <u>(255)</u> |
| TOTAL | <u>51,847</u> | <u>1,463</u> | <u>5,500</u> | <u>11,928</u> | <u>(148)</u> | <u>238</u> | <u>14,300</u> |
| IN EOR PRODUCTION [#] | 1,832 | 51 | 209 | 465 | (1) | 12 | |

* All impacts are cumulative.

Millions of barrels.

Basis:

- National Petroleum Council Enhanced Oil Recovery, June, 1984 and Bartlesville Project Office (DOE) EOR Data Base and Economic Model.
- Actual state by state current property and severance tax rates.
- Actual state by state income tax rates.
- Provisions of Secretary Regan's November, 1984 tax proposal regarding:
 - Intangible investments
 - Tertiary injectants
 - Revised AGRS depreciation
 - No tax credit
 - Modified depreciation schedules
 - Crude oil price of \$30.00 per barrel
 - 10% rate of return on investment



